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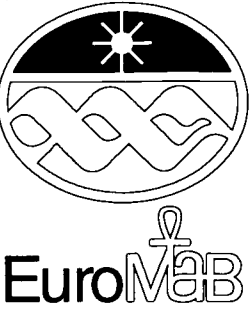
IDENTIFIERS \*Biosphere Reserves

## ABSTRACT

Following the EuroMAB meeting in Strasbourg, France (September 1991) and on an initiative of the Man and the Biosphere National Committee of the United States, a decision was made to create a research network from information available in biosphere reserves in 30 European countries, Canada and the United States. This Directory of EuroMAB Biosphere Reserves summarizes information on 175 biosphere reserves in these 32 countries. Its purpose is to direct the reader to sources of data and other information on the ongoing scientific activities in these biosphere reserves. The text of the directory is organized alphabetically by country and provides information on national contacts for biosphere reserves, names of the biosphere reserves, administrative units, administering entities, locations in latitude and longitude coordinates, area in hectares of the administrative units, biome and biogeographical provinces, years designated as a biosphere reserve, administrative officers and telephone numbers, and principal monitoring and research themes. A large tabular summary of the scientific databases, research topics, and available site support for research in EuroMAB biosphere reserves follows the directory text. For each country, a biosphere location map indicates the general location of the biosphere reserve. (LZ)

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International Cooperation of the  
MAN AND THE BIOSPHERE (MAB) PROGRAMS  
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A Directory of Contacts,  
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and Scientific Infrastructure  
on 175 Biosphere Reserves  
in 32 Countries

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UNESCO/MAB  
1 rue Miollis  
75015 Paris  
France

Telephone: [33] (1) 4568-4068  
FAX: [33] (1) 4065-9897

and

Customer Services Department of CIESIN  
Consortium for International Earth Sciences Information Network (CIESIN)  
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University Center, Michigan 48710  
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and Scientific Affairs

Released July 1993



EuroMAB

International Cooperation of the  
MAN AND THE BIOSPHERE (MAB) PROGRAMS  
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Uzbekistan  
Yugoslavia\*

A Directory of Contacts,  
Environmental Data Bases,  
and Scientific Infrastructure  
on 175 Biosphere Reserves  
in 32 Countries

## INTRODUCTION

Les preoccupations recentes en matiere d'observation de l'evolution des ecosystemes, des changements de differentes nature, de la biodiversité, font ressortir avec force la necessite de disposer d'outils de recherches appropriées.

A la suite de la reunion EuroMAB tenue a Strasbourg en Septembre 1991 et a l'initiative du conseil national des USA il a ete decide de creer un reseau d'observation de BRIM (Biosphere Reserve Integrated Monitoring program). Il est certain que les 175 reserves reparties entre 32 pays constituent des renseignements comparatifs, mesurables, et utiles. Ce sont des lieux de concentration de recherches et d'observation presentant en outre l'avantage d'etre concus pour le long terme. D'autre part la coexistence de ce reseau d'observation et d'experimentations dans le domaine de developpment durable ne peut qu'etre profitable.

Encore faut-il savoir qui fait quoi, comment et ou sont stockees des donnees et comment elles peuvent etre traitees?

L'outil qui doit permettre d'utiliser les outils est donc en train d'etre fabrique sans doute pour le profit de la gestion des reserves de la biosphere mais aussi pour celle d'une grande partie de notre planete.

Jacques Lecomte  
Chair, France MAB  
Chair, EuroMAB 1991-1993

Recent concerns resulting from observed changes in ecosystems, other types of changes in nature, and changes in biodiversity sharply underscore the need for appropriate research tools.

Following the EuroMAB meeting in Strasbourg in September 1991 and on an initiative of the Man and the Biosphere National Committee of the United States of America, a decision was made to create a research network from information available in biosphere reserves in 30 European countries and in Canada and the United States of America, the Biosphere Reserve Integrated Monitoring (BRIM) program. It is clear that the 175 biosphere reserves located in these 32 countries contain useful, measurable, comparative information. They have been identified as the areas where research and observation will be concentrated, and, in addition, have the advantage of having been designed for the long term. Also, the coexistence of this observation network and experimentation in the areas of sustainable development can only be beneficial.

There is still, though, a need to know: what, how, and where these data are being stored and how they will be processed.

This volume, the tool that should make it possible to use the available information, is therefore being created, undoubtedly, to utilize the tools available to benefit the management of biosphere reserves and, also, to benefit the management of a large part of our planet.

Jacques Lecomte  
Chair, France MAB  
Chair, EuroMAB 1991-1993

## USE OF THIS DIRECTORY

This Directory of EuroMAB Biosphere Reserves summarizes information on biosphere reserves in 32 countries in Europe, Canada, and the United States. Its purpose is to direct the reader to sources of data and other information on the scientific activities currently ongoing in these biosphere reserves. It is the intent of the creators of this directory to encourage and facilitate communication and cooperation involving biosphere reserves in order to address environmental problems and to demonstrate the role of biosphere reserves in conservation and the sustainable use of ecosystems.

This directory provides a common information base for use by policy makers, planners, scientists, and resource managers in government agencies and nongovernmental organizations, as well as for private individuals interested in biosphere reserves. It will provide a basic reference for use in developing the scientific and educational functions of the EuroMAB biosphere reserve network, which, as of early 1993, includes 175 biosphere reserves in 32 countries.

The text of the directory is organized alphabetically by country, and within each country, alphabetically according to the name of the biosphere reserve. A large tabular summary follows the directory text. The tabular summary provides information on the scientific databases, research topics, and available site support for research in EuroMAB biosphere reserves.

The directory was compiled from information provided by the UNESCO MAB Secretariat, National MAB Committees, and biosphere reserve administrators. Specific information sources included published UNESCO compilations of information on biosphere reserves, biosphere reserve nomination applications prepared by National MAB Committees, and a 1987 UNESCO survey of biosphere reserves. A computer database, developed from the 1987 survey by Yale University, provided the initial basis for preparing the tabular summary at the end of the directory. The United States MAB Secretariat, in cooperation with other EuroMAB representatives, updated and expanded the database, and circulated the entire directory for review and verification by National MAB Committees participating in EuroMAB.

The following explanations are provided to assist users in interpreting the information in the directory:

### **National Contact for Biosphere Reserves.**

The first page of each country's biosphere reserve directory lists the name, address, telephone number, and, where applicable, the facsimile transmission (FAX) number for the individual designated by the country's National Committee for Man and the Biosphere as the national contact for biosphere reserves. Users of the directory should direct general inquiries on national policies, programs, and activities relating to biosphere reserves to the national contact. A few recently established EuroMAB countries do not have a national MAB committee or a national contact for biosphere reserves. In these cases, users should direct general inquiries to the administrative officer or site manager of one of the country's biosphere reserves.

## **Telephone Numbers and FAX Numbers.**

The directory lists these numbers according to a standard protocol to facilitate international dialing. The first number, listed in brackets, is the country code. The number contains from one to three digits. The second number, listed in parentheses, is the city or area code. The number, when required, contains from one to five digits. A "+" follows this number in the directory to separate country and city or area codes from the local telephone number. The local telephone number normally contains from three to eight digits.

Local telephone numbers of 5 digits or fewer are listed as unbroken numbers; larger numbers are broken into groups of three and four digits. Thus, a complete listing for a telephone number in the United States, for example, would be [1](202) + 555-5555. The need for operator assistance is indicated when required to complete a local call. Some countries require unique access codes for dialing within the country, and these requirements may differ from those for international dialing. The directory does not list these in-country requirements. Directory users should become familiar with any local requirements when making calls within the country.

## **The Biosphere Reserve Location Map**

This directory contains a country map indicating the general location of the biosphere reserves for each EuroMAB participating country. The map shows the country boundary, adjacent states, and the names and locations of each of the country's biosphere reserves.

## **Biosphere Reserve Information Sheets**

This directory includes a one page information sheet for each EuroMAB biosphere reserve. The **name of the biosphere reserve** is based on the January 1993 UNESCO listing. **Administrative units**, such as "national park" or "protected landscape area," are not included in the name, but are listed under Administrative Unit. Many biosphere reserves include multiple administrative units. For reserves containing two administrative units, both units are listed. For biosphere reserves containing three or more administrative units, the directory usually indicates "multiple units." Under **Administering Entity**, the directory lists the government agency, organization, or other entity (entities) primarily responsible for administering or coordinating the biosphere reserve. A few biosphere reserves contain an administrative unit in two countries. Each country's unit is administered autonomously in accordance with its applicable laws and regulations. In these cases, a separate one-page information sheet is provided for the unit in each country. The information sheets are cross-referenced.

The **Location** of the biosphere reserve is normally reported by the latitude and longitude coordinates for the approximate geographic center of the biosphere reserve. For very large sites, a range of coordinates is reported. For biosphere reserves containing two or more units, or clusters of units, that are widely separated geographically, the coordinates of the approximate geographic centers of these units or clusters of units are reported.



The **Area** of the biosphere reserve is the area in hectares of the administrative unit or units officially designated by UNESCO as the biosphere reserve. This area normally includes the core area(s) and buffer zone(s) of the biosphere reserve, but not the surrounding transition area, or zone of cooperation, except in cases where the latter is an officially designated component of the biosphere reserve.

The directory lists UNESCO's categorization of each biosphere reserve by **Biome** and **Biogeographical Province** as an indication of each site's general ecological characteristics. The categorization uses the Udvardy system of territorial biogeographic classification, which recognizes 14 biomes and 193 biogeographical provinces (M.D.F. Udvardy. 1975. A classification of the biogeographical provinces of the world. IUCN Occasional Paper No.18). If a site includes coastal or marine ecosystems, the biome listing notes the presence of these components.

The **Year Designated as a Biosphere Reserve** reflects the year UNESCO recognized the biosphere reserve under its current name. A few multiple unit biosphere reserves represent consolidation of administrative units originally designated as biosphere reserves under different names. The year of the original designation for each of these administrative units is not listed.

The **contact** for the biosphere reserve is normally a single individual who is responsible for administration and coordination of programs to implement biosphere reserve objectives as well as site protection and management. In some EuroMAB biosphere reserves, different individuals are responsible for administration and site management. In these cases, the directory provides a separate listing for the **administrative officer** and **site manager**.

The **telephone number** and, where applicable, the **FAX number** for the contact(s) are listed using the standard protocol described. If the biosphere reserve contact has access to an electronic mail system, the directory identifies the name of the E-mail system and the computer address.

**Principal Monitoring and Research Themes** reflect the activities of greatest emphasis in the biosphere reserve's ongoing scientific programs. The listing is based on information in published UNESCO documentation or provided directly by national MAB organizations or individual biosphere reserves.

### **The EuroMAB Biosphere Reserve Survey**

At the end of the directory is a matrix of biosphere reserve survey information on categories of basic resource information, research topics, and site support for 169 of the 175 EuroMAB Biosphere Reserves designated as of early 1993. No data are available for six biosphere reserves. The survey table summarizes general information on the scientific activities, infrastructure, and facilities of each biosphere reserve. This information is provided to encourage communication involving biosphere reserves. Those interested in more detailed information may obtain this information from the designated contact individual for the biosphere reserve. An "X" under a category indicates that the category of activity applies to the biosphere reserve. A number under the category indicates the approximate duration of continuous or intermittent activity in years.



The survey table summarizes the availability of **Basic Resource Information** according to the broad headings of **biological inventory** (7 categories), **ecological monitoring** (10), **resource maps** (6), and **historical records** (6).

**Research Topics** are presented for **ecosystem cycles and processes** (7 categories), **species populations** (3), **pollution** (4), **human systems** (7), and **management practices** (10). The table identifies the categories for which the biosphere reserve has a record of previous or ongoing scientific activity.

Under the broad heading of **Site Support**, the survey table summarizes the availability, within the biosphere reserve, of **scientific infrastructure** (6 categories), **monitoring and research facilities** (6) and **permanent research staff**. An "X" under a category indicates that the facility or component of infrastructure is currently available at the biosphere reserve. For several categories, a number is provided. Under **lodging for scientists**, the number of scientists for whom lodging can be provided is indicated. Under **permanent plots: lake/stream** and **permanent plots:vegetation**, the number of plots established for long-term observations is indicated. Under **watershed research site**, the survey table indicates the number of watersheds used for conducting interdisciplinary studies. Under **permanent research staff**, the survey table records the number of scientists and technical support staff responsible for implementing the biosphere reserve's research program. For biosphere reserves having units in two countries, the table provides data for each unit.

Following the survey table, the directory provides additional data summaries to assist users interested in identifying opportunities for cooperation involving biosphere reserves in particular biomes. The first summary lists the number of each country's biosphere reserves by biome. The second lists, for each biome, the number of EuroMAB biosphere reserves (ex 170) with affirmative responses for each of the 76 information categories in the survey. The third lists the frequency of the data bases on the EuroMAB biosphere reserves.

## EUROMAB COUNTRIES WITH BIOSPHERE RESERVES

Austria (4)  
Belarus (1)  
Bulgaria (17)  
Canada (6)  
Croatia (1)

Czech Republic (5 -- one joint with Poland)  
Denmark (1)  
Estonia (1)  
Finland (1)  
France (8)

Germany (12)  
Greece (2)  
Hungary (5)  
Ireland (2)  
Italy (3)

Kyrgyzstan (1, joint with Uzbekistan)  
Netherlands (1)  
Norway (1)  
Poland (7 -- 1 joint with Czech Republic, 2 joint with Slovakia)  
Portugal (1)

Romania (3)  
Russia (14)  
Spain (11)  
Slovakia (4 -- 2 joint with Poland)  
Sweden (1)

Switzerland (1)  
Turkmenistan (1)  
Ukraine (3)  
United Kingdom (13)  
United States (47)

Uzbekistan (1 - joint with Kyrgyzstan)  
Yugoslavia\* (1)

32 countries, 175 biosphere reserves (4 have units in 2 countries)

Note: Number of biosphere reserves in January 1993 is indicated in parentheses

## ACKNOWLEDGMENTS FOR LEADERSHIP, GUIDANCE AND ASSISTANCE

This directory is the result of a process that started at the EuroMAB III Congress in September of 1991, in Strasbourg, France. EuroMAB is the cooperative framework for MAB Programs of the countries of Europe and North America and was established by UNESCO to promote intra-regional cooperation. Similar geopolitical regional cooperative MAB programs exist for Africa, Asia and Latin America.

At the EuroMAB III Congress, two scientific presentations attracted considerable attention of the delegates. The first presentation was by Dr. Caroline Bledsoe of the University of California, Davis, entitled "Networking the Networks." Drawing upon her experience as the coordinator of the Long Term Ecological Research Sites (LTERS) of the National Science Foundation, she pointed out that while many specialized scientific research sites and networks exist throughout the world, most were uniquely specialized and had little communication with other sites or networks. Yet, many sites in different networks do carry out apparently complementary research activities. She noted that the sharing of this information should be promoted to the wider scientific community beyond the narrowly specialized disciplines for which the specific network was initially established.

Dr. Bledsoe --with support from U.S. MAB and other funding sources --has, since 1991, organized two workshops to develop an inter-networks pilot project to determine if sites from various networks could indeed carry out, on a pilot basis, coordinated ecological research and monitoring programs. Copies of the workshops report, Ecological Network of Networks: Creating A Network to Study Ecological Effects of Global Climate Change, (eds. Caroline S. Bledsoe and Mary C. Barber) are available from the U.S. MAB Secretariat in Washington, D.C.

A second significant stimulus to this directory which was also presented at the EuroMAB III Congress was provided by Dr. Michael Ruggiero, Chief of the Wildlife and Vegetation Division of the National Park Service. He showed how standardized biological inventory measures can monitor biological diversity within protected areas, and serve as tools for management and budget decision making. Such standardized inventories if broadly based across biogeographical regions or biomes, could also be useful to policy makers for monitoring indicators of global change.

To Dr. Bledsoe and Dr. Ruggiero whose presentations stimulated the production of this directory, we acknowledge with gratitude their scientific leadership.

Following discussion of these presentations, Dr. Jaques Lecomte, Chairman of the Congress, appointed a small working group to further pursue the concepts as they related to activities which could be promoted among the biosphere reserves of Europe and North America. Consequently, Minister Counselor Wilfried Goerke and Mr. Juergen Nauber of Germany, Dr. Francisco Garcia Novo of Spain, Dr. Valerie Neronov of Russia, Dr. Michael Morris of the United Kingdom, along with Dr. Ruggiero met to further advance the concepts of inter-biosphere working relationships. This working group recognized that while much valuable ecological work was being accomplished on biosphere reserves -- some of it strikingly similar in essence -- little interchange had occurred except through some specialized bilateral research programs among individual scientists or publications in journals of the various specialized disciplines. What was needed, they determined, was a

mechanism to open up the scientific resources of the biosphere reserves not only to those working on other biosphere reserves, but to the wider scientific community as well.

The group thought that EuroMAB's strength and relative advantage lay in its potential ability to integrate the multiple scientific data bases being compiled on biosphere reserves for purposes such as monitoring global change and changes in global/intra-regional biological diversity. Hence the project's acronym was created to reflect this "Biosphere Reserve Integrated Monitoring (BRIM)" project which would build upon the existing strengths of the reserves and not require a costly new initiative of the cooperating MAB programs.

Therefore, the group recommended that the EuroMAB III Congress commission a special study and work group to develop international linkages between the biosphere reserves in the EuroMAB region. The EuroMAB Congress accepted this recommendation.

To help implement this process, U.S. MAB offered to first carry out a survey of the existing Biosphere Reserves in the EuroMAB region to identify key scientific research and monitoring strengths of the reserves and to host a workshop within 6 months to further elaborate a program to promote inter-biosphere reserve communications.

A U.S. MAB interagency working group consisting of Dr. Paul Dunn, USDA Forest Service, Dr. Clive Jorgensen, the Department of Energy, Dr. Joann Roskoski of the National Science Foundation, Granville Sewell of the Department of State, Drs. Ruggiero and William Gregg of the National Park Service and Dr. William Jenkins of The Nature Conservancy was then established to assist the U.S. MAB Secretariat in developing the goals and a strategy for obtaining the desired information.

At the initial meeting of this group, Dr. William Gregg presented information concerning a 1987 survey of biosphere reserves which was conducted by UNESCO. The data base of information resulting from that survey had been given by UNESCO to Yale University. Dr. Gregg obtained a copy of the original data base from Yale, and was the leader in interpreting this database. The U.S. working group reviewed the contents of the UNESCO/Yale data base and identified approximately 65 fields of scientific data, site infrastructure and other information about the biosphere reserves in the EuroMAB region they thought would be most useful to the wider scientific community. The group concluded that one of the most effective ways in which this scientific information being gathered on biosphere reserves could be shared was to produce a directory of the biosphere reserves describing the available data and other relevant information.

At this point Mr. Mark Pankin of Arlington, Virginia was contracted with by the U.S. MAB Secretariat to develop the formats which appear in this directory. The computer skills and database manipulative ability of Mr. Pankin are truly appreciated as he has taken this data and made it possible for it to be more readily accessible and to be utilized by the scientific community. Mr. Pankin's helpful suggestions on formatting information for clarity were also most constructive and appreciated.

Within 45 days of returning from the EuroMAB Congress, the U.S. MAB Secretariat sent out to all "BRIM" coordinators an initial draft format containing the preliminary information gleaned from the UNESCO/Yale data base and other sources, and requesting, with a deadline of December 31, 1991, the return of whatever updated information could be obtained to add to the accuracy and utility of this directory.

By December 31, 1991, 60 percent of the 175 biosphere reserves in the 32 countries had responded within the given time frame. By the convening of the February 1992 U.S. workshop on BRIM, over 70 percent had responded with corrected and updated information.

Nine countries sent delegates to the U.S. workshop at the U.S. MAB Secretariat. The delegates worked for 4 days, reviewing the information which the biosphere reserves had provided and discussed with experts developing international scientific research and monitoring programs.

The delegates decided to pursue the creation of five BRIM products to increase the utility, the inter-communications and the accessibility of the scientific community to the information being gathered on biosphere reserves. The recommended products were:

1. The publishing of this directory -- U.S. MAB agreed to spearhead this effort.
2. Produce a similar yet more descriptive and detailed directory concerning the permanent research plots on biosphere reserves. The MAB Programs of Germany and Spain (with Denmark later joining the effort) agreed to take the initial responsibility for developing this.
3. Develop a series of case studies specifically concerning social and demographic elements in biosphere reserves. Canada/MAB agreed to take the leadership position on this element.
4. Develop a standardized reporting format for biosphere reserves to document flora, fauna and the status of biological inventories. The MAB Programs of the Czech Republic, Slovak Republic, Sweden and the U.S. agreed to collaborative leadership for this project.
5. Develop a global change project proposal involving north/south transects utilizing biosphere reserves to the maximum extent, as well as utilizing alpine and high altitude sites as proxy measures for latitudinal gradients. Russia/MAB volunteered to develop this project proposal.

The February 1992 workshop had also noted the relative lack of information involving management plans and social science elements in the UNESCO survey data. They recommended that the sites should be re-surveyed to obtain additional information on these elements.

Therefore, U.S. MAB again surveyed the reserves -- an exercise which also provided an excellent opportunity to show the reserves an interim product and asked them to verify the accuracy of the information that the reserves had already supplied. Eight more categories of information were therefore added to the database matrix. Country and area coordinators were also called upon to contact those biosphere reserves to which communications were more difficult. Dr. Neronov deserves special appreciation in facilitating the gathering of information from biosphere reserves in the former Soviet Union.

The U.S. MAB Secretariat obtained the computer software program "MacGlobe" and utilized the maps from that program for the country contact pages. Andrew G. Soles of Mary Washington College, Virginia, working with Mr. Pankin, initially transferred the longitude and latitude coordinates to locate the biosphere reserve sites on the maps.

The updating and entering of all of this information was carried out by Ms. Erica Serabien, of the National Park Service who, working with Dr. Gregg, was key in developing and keying in the formats containing the site specific information on each biosphere reserve. Her patience and willingness to continually update the original data and make the numerous changes is most gratefully acknowledged.

In July of 1992, a second workshop on EuroMAB Brim was held, this one hosted by France MAB in Paris. This meeting was scheduled so that some of the BRIM participants could also participate in the UNESCO/International Geosphere Biosphere Program (IGBP) workshop on Global Change in Terrestrial Ecosystems and inform them about the BRIM project. Draft pages of this directory were reviewed and modified; country leaders of the other BRIM products reported on their progress and problems encountered in the process of implementing their BRIM sub-projects noted above.

By the time the 12th International Coordinating Conference of the UNESCO Man and the Biosphere Program was held in January 1993, in Paris, France, an initial draft of this directory had been completed. It was circulated to the EuroMAB delegates and a deadline of March was set for the submission of additions or corrections by the participating countries.

In the meantime, of course, some new countries emerged, spellings changed and some new biosphere reserves were recognized by the MAB Bureau. All of these changes, as well as the needed meticulous tasks of ensuring consistencies, were ably guided by Mrs. Cecile Ledsky of the U.S. MAB Secretariat staff. Mrs. Ledsky ably took on the tremendous task of ensuring the internal consistency of this directory as new nations emerged, others declined, spelling changed and changed back again. Her dedication and high professional standards were critical in producing this directory and ensuring its accuracy.

A final note of appreciation must also go to the UNESCO MAB staff who have now adopted the formats herein and will produce a directory including the nearly equal number of biosphere reserves in Asia, Africa and Latin America. Thus, a truly global directory of biosphere reserves is to be produced by the early autumn of 1993 and UNESCO is to be congratulated.

In sum, therefore, it is a pleasure to note that this directory will soon be outmoded by one considerably more comprehensive and expansive. One of the true potentials of the international network of biosphere reserves, to link the world's most extensive network of conservation reserves and scientific research sites is about to become a reality.

To all those who labored so diligently on ACCESS, and to their supervisors and managers who encouraged their participation and collaboration with the U.S. MAB Secretariat, your significant contributions are most appreciated and congratulations are due.

Roger E. Soles, Ph.D.  
Executive Director  
U.S. MAB

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EuroMAB Biosphere Reserve Data Bases

Basic Resource Information  
Research Topics  
Site Support

Tabular Data Summaries

Country Biosphere Reserves by Biome  
Data Summaries by Biome  
Data Bases by Frequency



## **Country and Biosphere Reserve Information**

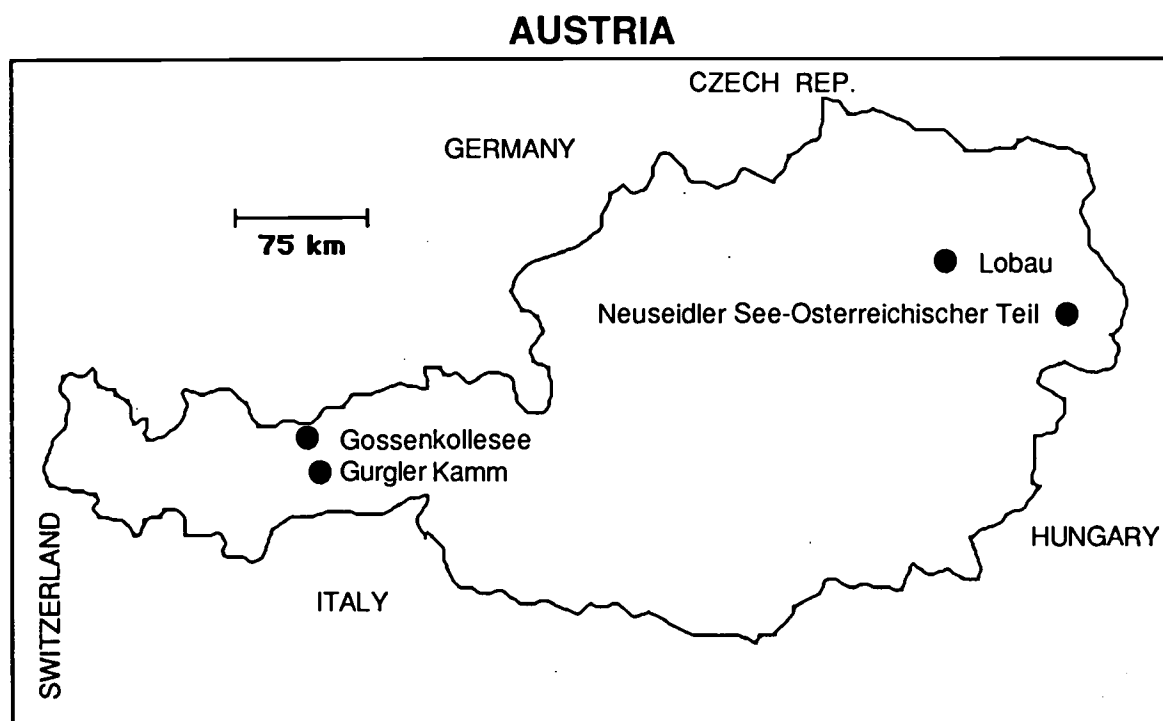
## NATIONAL CONTACT FOR BIOSPHERE RESERVES

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**Telephone:** [43] (222) + 5158-1268, [43] (222) + 5158-1271  
**FAX:** [43] (222) + 513-9541

## BIOSPHERE RESERVE LOCATION MAP



**Biosphere Reserve:** Gossenkollesee

**Administrative Unit:**

**Administering Entity:** Local government

**Location:** 47°14'N, 1°01'E

**Area (hectares):** 100

**Elevation Range:** 2,413 (lake level) - 2,828m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:**

**Address:** Amt der Tiroler Landesregierung  
Abteilung Umweltschutz  
Sillgasse 8  
A-6020 Innsbruck  
Austria

**Telephone:** [43] (512) + 576-377  
**FAX:** [43] (512) + 576-377-200

**Principal Monitoring and Research Themes:**

High mountain lake ecosystems  
Quantitative autecological investigations  
Environmental monitoring

**Biosphere Reserve:** Gurgler Kamm  
**Administrative Unit:** Obergurgler Zirbenwald  
**Administering Entity:** Local government  
**Location:** 46°51'N, 11°04'E  
**Area (hectares):** 1,500  
**Elevation Range:** 1,900 - 3,400m  
**Biome:** Mixed mountain systems with complex zonation  
**Biogeographic Province:** Central European Highlands  
**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:**

**Address:** Amt der Tiroler Landesregierung  
Abteilung Umweltschutz  
Sillgasse 8  
A-6020 Innsbruck  
Austria

**Telephone:** [43] (512) + 576-377  
**FAX:** [43] (512) + 576-377-200

**Principal Monitoring and Research Themes:**

Geology  
Biological investigations  
Mountain systems

**Biosphere Reserve:** Lobau

**Administrative Unit:** Lobau Reserve

**Administering Entity:** Magistratsabteilung 22-Umweltschutz

**Location:** 48°10'N, 16°32'E

**Area (hectares):** 1,000

**Elevation Range:** 150 - 155m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Michael Kubik

**Address:** Townhall of Vienna  
Magistrats abteilung 22 Umweltschutz  
Ebendorferstrasse 4  
1082 Vienna  
Austria

**Telephone:** [43] (222) 4000 88263

**FAX:** [43] (222) 4099 88211, 4099 88215

**Principal Monitoring and Research Themes:**

Limnological studies  
Vegetation mapping  
Botanical studies

**Biosphere Reserve:** Neusiedler See-Osterreichischer Teil

**Administrative Unit:**

**Administering Entity:** Mostly private ownerships; research  
administered by Illmitz Biological Station

**Location:** 47°40'-56'N, 16°40'-160°52'E

**Area (hectares):** 25,000

**Elevation Range:** 114m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Pannonian

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:**

**Address:** Illmitz Biological Station  
Abteilung 4 Nature und Landschaftsschutz  
A-7142 Illmitz  
Austria

**Telephone:** [43] (2175) + 2328  
**FAX:** [43] (2175) + 232-810

**Principal Monitoring and Research Themes:**

Hydrological monitoring  
Meteorological monitoring  
Biological studies on migratory birds  
Human impacts on lake biota  
Eutrophication research

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Vladimir Gonchar

**Address:** 211188, post. Domzheritsy  
Lepel District  
Vitebsk Region  
Belarus

**Telephone:** [7] (02132) + 21380, + 26342, + 26343

**FAX:** [7] (0172) + 200-696

**BIOSPHERE RESERVE LOCATION MAP  
BELARUS**



**Biosphere Reserve:** Berezinsky

**Administrative Unit:** Berezinsky Reserve

**Administering Entity:** Council of Ministers

**Location:** 54°30'N, 28°30'E

**Area (hectares):** 114,000

**Elevation Range:** 164 - 220m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Middle European Forest

**Year Designated as biosphere reserve:** 1979

**Administrative Officer**

**Contact:** Vladimir Gonchar

**Address:** 211188, p/o Domzheritsy  
Lepel District  
Vitebsk Region  
Belarus

**Telephones:** [7] (02132) + 21380  
[7] (02132) + 26342  
[7] (02132) + 26343

**FAX:** [7] (0172) + 200-696

**Principal Monitoring and Research Themes:**

Multimedia environmental monitoring  
(atmosphere, precipitation, soil,  
vegetation, animals)  
Impact of agriculture and drainage on  
wetlands and woodlands

## NATIONAL CONTACT FOR BIOSPHERE RESERVES

**Name:** Taniu Michev, Director  
Ivan Yanchev, Technical Secretary

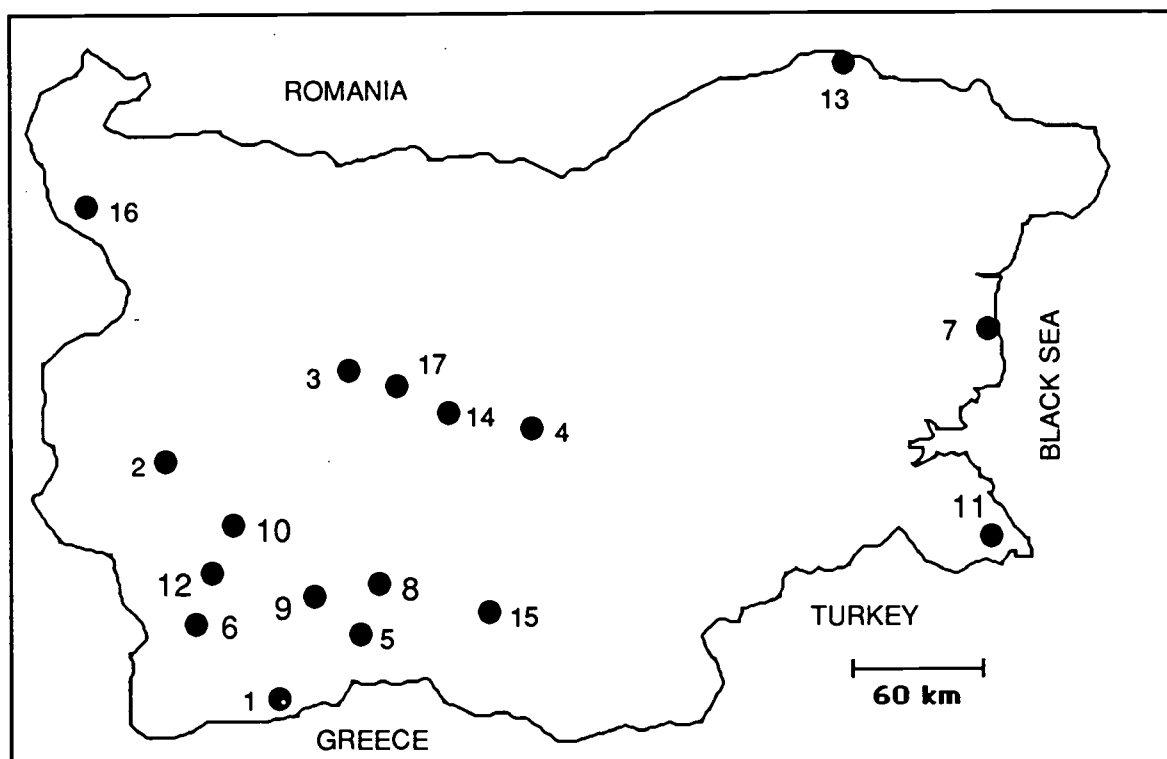
**Address:** Institute for Ecology  
2 Gargarin Str.  
Bulgarian Academy of Sciences  
1113 Sofia  
Bulgaria

**Telephone:** [359] (2) 705-498

**FAX:** [359] (2) 705-498

## BIOSPHERE RESERVE LOCATION MAP

## BULGARIA



- |                         |                     |                       |
|-------------------------|---------------------|-----------------------|
| 1. Alibotouch           | 7. Kamchia          | 13. Srebarna          |
| 2. Bistrishko Branichte | 8. Koupena          | 14. Steneto           |
| 3. Boatine              | 9. Mantaritza       | 15. Tchervenata Stena |
| 4. Djendema             | 10. Marichini Ezera | 16. Tchouprene        |
| 5. Doupkata             | 11. Ouzounboudjak   | 17. Tsaritchina       |
| 6. Douпки-Djindjiritza  | 12. Parangalitza    |                       |

**Biosphere Reserve:** Alibotouch

**Administrative Unit:** Alibotouch Reserve

**Administering Entity:** Department of Forestry

**Location:** 41°25'N, 23°32'E

**Area (hectares):** 1,628

**Elevation Range:** 1,150 - 2,200m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Ivan Radoinova

**Address:** Forestry Gotze Delchev  
Sofia District  
Bulgaria

**Telephone:** [359] (73) + --

**Principal Monitoring and Research Themes:**

Floristic studies  
Avifaunal studies

**Biosphere Reserve:** Bistrishko Branichte

**Administrative Unit:** Bistrishko Branichte Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°35'N, 23°15'E

**Area (hectares):** 1,177

**Elevation Range:** 1,450 - 2,280m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Todor Rochkov

**Address:** National Park Vitosha  
Sofia District  
Bulgaria

**Telephone:** [359] + 870-052

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Boatine

**Administrative Unit:** Boatine Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°52'N, 24°20'E

**Area (hectares):** 1,281

**Elevation Range:** 750 - 1,900m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Borislav Bechsev

**Address:** Forestry Cherni Vit  
Cherni Vit  
Lovetch District  
Bulgaria

**Telephone:** [359] 227

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Djendema

**Administrative Unit:** Djendema Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°47'N, 24°45'E

**Area (hectares):** 1,775

**Elevation Range:** 600 - 2,376m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Georgi Bankov

**Address:** Plovdiv District  
Bulgaria

**Telephone:** [359] (335) + 26500

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Doupkata

**Administrative Unit:** Doupkata Reserve

**Administering Entity:** Department of Forestry, Pazardhik Region

**Location:** 41°50'N, 24°15'E

**Area (hectares):** 1,867

**Elevation Range:** 1,000 - 1,645m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Georgi Kunev

**Address:** Forestry Borovo  
Plovdiv District  
Bulgaria

**Telephone:** [359] 381

**Principal Monitoring and Research Themes:**



**Biosphere Reserve:** Douпки-Djindjiritza

**Administrative Unit:** Baiuva Douпки and Malka Djindjiritza Reserves

**Administering Entity:** Department of Forestry

**Location:** 44°48'N, 23°25'E

**Area (hectares):** 2,873

**Elevation Range:** 1,200 - 2,884m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** K. Ikonomov

**Address:** NP Pirin,  
Banksko  
Bulgaria

**Telephone:** [359] (73) + 1287 or 2313

**Principal Monitoring and Research Themes:**

Floristic studies  
Ecological studies of chamois

**Biosphere Reserve:** Kamchia

**Administrative Unit:** Kamchia Reserve

**Administering Entity:** Department of Forestry

**Location:** 43°02'N, 27°50'E

**Area (hectares):** 1,445

**Elevation Range:** 0 - 4m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Ivan Dimitrov

**Address:** Forestry Staro Oriahovo  
Varna District  
Bulgaria

**Telephones:** [359] (5141) + 2310, [359] (52) + 449-686

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Koupena

**Administrative Unit:** Koupena Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°05'N, 24°20'E

**Area (hectares):** 2,800

**Elevation Range:** 650 - 1,410m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Vasil Iordanov

**Address:** Forestry Peshtera,  
Plovdiv District  
Bulgaria

**Telephone:** [359] (350) + 3885

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Mantaritza

**Administrative Unit:** Mantaritza Reserve

**Administering Entity:** Department of Forestry

**Location:** 41°58'N, 24°02'E

**Area (hectares):** 1,082

**Elevation Range:** 1,400 - 1,900m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Svetoslav Meganov

**Address:** Forestry Rakitovo  
Plovdiv District  
Bulgaria

**Telephone:** [359] (3512) + 2155

**Principal Monitoring and Research Themes:**

Silvicultural studies

**Biosphere Reserve:** Marichini Ezera

**Administrative Unit:** Marichini Ezera Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°14'N, 23°35'E

**Area (hectares):** 2,500

**Elevation Range:** 1,800 - 2,925m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Georgi Vulkov

**Address:** Forestry Borovetz  
Sofia District  
Bulgaria

**Telephone:** [359] (2) + 870-052

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Ouzounboudjak

**Administrative Unit:** Ouzounboudjak Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°00'N, 27°45'E

**Area (hectares):** 2,575

**Elevation Range:** 150 - 200m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Dimo Kunev

**Address:** Forestry Kosti  
Bourgaso District  
Bulgaria

**Telephone:** [359] (56) + 442-984

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Parangalitza

**Administrative Unit:** Parangalitza Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°15'N, 23°15'E

**Area (hectares):** 2,767

**Elevation Range:** 1,400 - 2,485m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Georgi Kalasbakov

**Address:** Forestry Blagoevgrad  
Sofia District  
Bulgaria

**Telephone:** [359] (73) + 23896

**Principal Monitoring and Research Themes:**

Research on game animals  
Research on flora and vegetation  
Silvicultural studies

**Biosphere Reserve:** Srebarna

**Administrative Unit:** Srebarna Nature Reserve

**Administering Entity:** Research and Coordination Center for the  
Protection and Restoration of the  
Environment

**Location:** 44°05'N, 27°07'E

**Area (hectares):** 1,143

**Elevation Range:** 100m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Ivan Dimitrov

**Address:** Forestry Silistra  
Bulgaria

**Telephone:** [359] (86)

**Principal Monitoring and Research Themes:**

Species population (long-term)  
Ecological requirements for species  
conservation



**Biosphere Reserve:** Steneto

**Administrative Unit:** Steneto National Park

**Administering Entity:** Department of Forestry

**Location:** 42°48'N, 24°40'E

**Area (hectares):** 6,101

**Elevation Range:** 650 - 2,166m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Kotcho Kochev

**Address:** Forestry Cherni Osam  
Lovetch District  
Bulgaria

**Telephone:** [359] (377) + 6702

**Principal Monitoring and Research Themes:**

Forest vegetation studies  
Faunal studies  
Cave studies

**Biosphere Reserve:** Tchernvenata Stena

**Administrative Unit:** Tchernvenata Stena Reserve

**Administering Entity:** Department of Forestry

**Location:** 41°52'N, 24°45'E

**Area (hectares):** 812

**Elevation Range:** 400 - 1,500m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Dimitar Djambazov

**Address:** Forestry Asenovgrad  
Plovdiv District  
Bulgaria

**Telephone:** [359] (331) + 23040

**Principal Monitoring and Research Themes:**

Floristic studies (relict forests)

**Biosphere Reserve:** Tchouprene

**Administrative Unit:** Tchouprene Reserve

**Administering Entity:** Department of Forestry

**Location:** 43°43'N, 22°30'E

**Area (hectares):** 1,982

**Elevation Range:** 1,300 - 2,000m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Blagoi Georgiev

**Address:** Forestry Mihailovgrad  
Department of Vidine  
Bulgaria

**Telephone:** [359] (96) + 23541

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Tsaritchina

**Administrative Unit:** Tsaritchina Reserve

**Administering Entity:** Department of Forestry

**Location:** 42°50'N, 24°30'E

**Area (hectares):** 3,359

**Elevation Range:** 400 - 1,500m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Liubomir Ivanov

**Address:** Lovetch District  
Bulgaria

**Telephone:** [359] (32) + 682-7960

**Principal Monitoring and Research Themes:**

Silvicultural research  
Ornithological observations

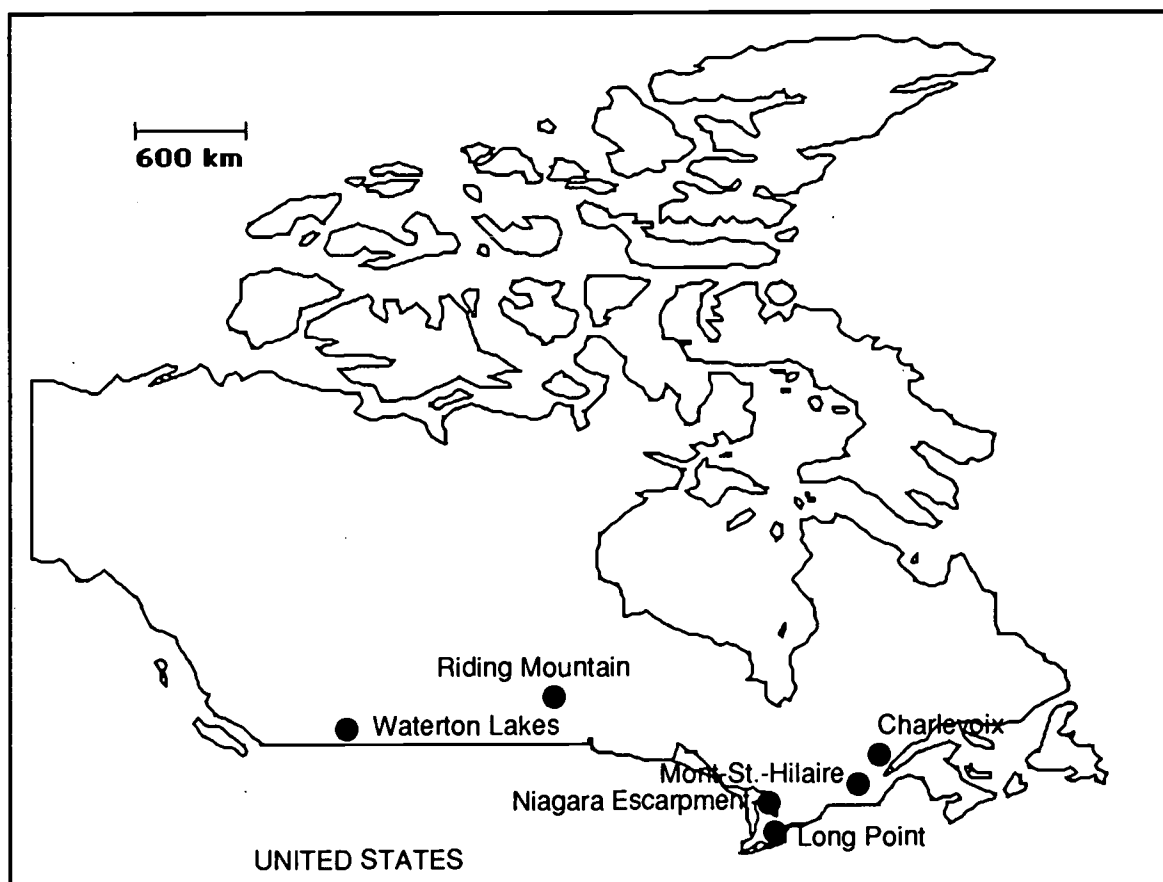
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Mr. Bruce Amos

**Address:** Chairman  
Working Group on Biosphere Reserves  
Canada/MAB  
Canadian Commission for UNESCO  
99 Metcalfe 54, C.P. 1047  
Ottawa, Ontario K1P 5V8  
Canada

**Telephone:** [1] (613) + 598-4330

**FAX:** [1] (613) + 598-4405

**BIOSPHERE RESERVE LOCATION MAP  
CANADA**

**Biosphere Reserve:** Charlevoix

**Administrative Unit:** Multiple units

**Administering Entity:** Corporation de la reserve mondiale de la biosphere de Charlevoix

**Location:** 47°15'-48°05'N, 69°55'-71°10'W

**Area (hectares):** 448,000

**Elevation Range:** 0 - 3,800m

**Biome:** Temperate needle-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Canadian Taiga

**Year Designated as Biosphere Reserve:** 1988

**Administrative Officer**

**Contact:** Charles Roberge

**Address:** 4, Place de l'Eglise  
Baie-Saint-Paul, Quebec GOA IBO  
Canada

**Telephone:** [1] (418) + 665-4454

**FAX:** [1] (418) + 665-3811

**Principal Monitoring and Research Themes:**

Aquatic ecosystems (integrated)	Ethnobiology
Atmospheric pollution	Geology and geomorphology
Avian and mammalian population dynamics	Long-term ecological monitoring
Biological inventory (fish, mammals, invertebrates, vascular plants)	Multidisciplinary ecosystem characterization
	Silvicultural/forest management
	Soil utilization

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**Biosphere Reserve:** Long Point

**Administrative Unit:** Multiple units (4)

**Administering Entity:** Long Point Biosphere Reserve Executive Committee

**Location:** 43°35'N, 80°20'W

**Area (hectares):** 27,000

**Elevation Range:** 175 - 188m

**Biome:** Lake systems  
(includes costal/marine component)

**Biogeographic Province:** Great Lakes

**Year Designated as Biosphere Reserve:** 1986

**Administrative Officer**

**Contact:** David Reid, Chairman  
Arthur Langford, Secretary

**Address:** Biosphere Reserve Executive Committee  
General Delivery  
Port Rowan, Ontario NOE 1MO  
Canada

**Telephone:** [1] (519) + 586-7122 (Secretary)

**Principal Monitoring and Research Themes:**

Long-term avian observations, including  
annual waterfowl census  
Wildlife management research  
Fisheries research  
Recreation studies  
Effects of industrial development

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**Biosphere Reserve:** Mont-Saint-Hilaire

**Administrative Unit:** Centre de conservation de la nature du  
Mont-Saint-Hilaire

**Administering Entity:** McGill University

**Location:** 45°33'N, 75°10'W

**Area (hectares):** 5,550

**Elevation Range:** 106 - 416m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Eastern forest

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

**Contact:** Michel Drew

**Address:** 422, rue des Moulins  
Mont-Saint-Hilaire, Quebec J3G 4S6  
Canada

**Telephone:** [1] (514) + 467-1755

**FAX:** [1] (514) + 467-4074

**Principal Monitoring and Research Themes:**

Zoological studies  
Geological and pedological studies  
Meteorology  
Applied geophysics



<b>Biosphere Reserve:</b>	<b>Niagara Escarpment</b>	
<b>Administrative Units:</b>	Multiple units (includes more than 100 protected areas), many ownerships	
<b>Administering Entity:</b>	Niagara Escarpment Commission and Canadian Parks Service	
<b>Location:</b>	43°10'-45°15N, 79°03'-81°40'W	
<b>Area (hectares):</b>	207,240	
<b>Elevation Range:</b>	90 - 560m	
<b>Biome:</b>	Temperate broad-leaf forests	
<b>Biogeographic Province:</b>	Eastern Forest	
<b>Year Designated as Biosphere Reserve:</b>	1990	
	<b><u>Administrative Officer</u></b>	<b><u>Site Manager</u></b>
<b>Contacts:</b>	Richard Murzin MAB Liaison Officer Nars Borodczak Director Niagara Escarpment Commission	Robert Day Superintendent Bruce Peninsula National Park
<b>Addresses:</b>	232 Guelph Street Georgetown, Ontario L7G 4B1 Canada	P.O. Box 189 Tobermory, Ontario N0H 2R0 Canada
<b>Telephone:</b>	[1] (416) + 877-5191	[1] (519) + 596-2233
<b>FAX:</b>	[1] (416) + 873-7452	[1] (519) + 596-2298

**Principal Monitoring and Research Themes:**

Acidic deposition	Biological surveys of flora and fauna
Human systems	Ecosystem studies/succession/fire effects
Cultural anthropology	Mining reclamation
Resource mapping	Fish/wildlife population dynamics
Ecosystem restoration	Great Lakes level changes
Anthropogenic pollutants	Recreation/tourism impacts

**Biosphere Reserve:** Riding Mountain

**Administrative Unit:** Multiple units (3)

**Administering Entity:** Riding Mountain Biosphere Reserve

**Location:** 50°30'-51°01'N, 99°31'-101°05'W

**Area (hectares):** 297,591

**Elevation Range:** 318 - 755m

**Biome:** Temperate needle-leaf forests and  
Temperate grasslands

**Biogeographic Province:** Canadian Taiga and Grasslands

**Year Designated as Biosphere Reserve:** 1986

**Administrative Officer****Site Manager**

**Contact:** Ray Armbruster

Mac Estabrook

**Address:** P.O. Box 428  
Rossburn, Manitoba R0J 1V0  
Canada

Riding Mountain National Park  
Wasagaming,  
Manitoba R0J 2H0  
Canada

**Telephones:** [1] (204) + 859-2088

[1] (204) 848-2811

**FAX:** [1] (204) + 848-2596

[1] (204) 848-2596

**E-Mail:** --

--

**Principal Monitoring and Research Themes:**

Ecology/population dynamics of mammals  
Grassland ecology  
Small watershed ecosystems (long-term)

**Biosphere Reserve:** Waterton Lakes

**Administrative Unit:** Waterton Lakes National Park

**Administering Entity:** Waterton Biosphere Association

**Location:** 49°00'-49°12'N, 113°39'-114°10'W

**Area (hectares):** 52,597

**Elevation Range:** 1,274 - 2,918m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Rocky Mountains

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer****Site Manager**

**Contact:** Larry Frith

Merv Syroteuk

**Address:** Twin Butte,  
Alberta T0K 2J0  
Canada

Waterton Lakes National Park  
Waterton, Alberta T0K 2M0  
Canada

**Telephone:** [1] (403) + 627-2065

[1] (403) + 859-2262

**FAX:** [1] (403) + 859-2650

[1] (403) + 859-2650

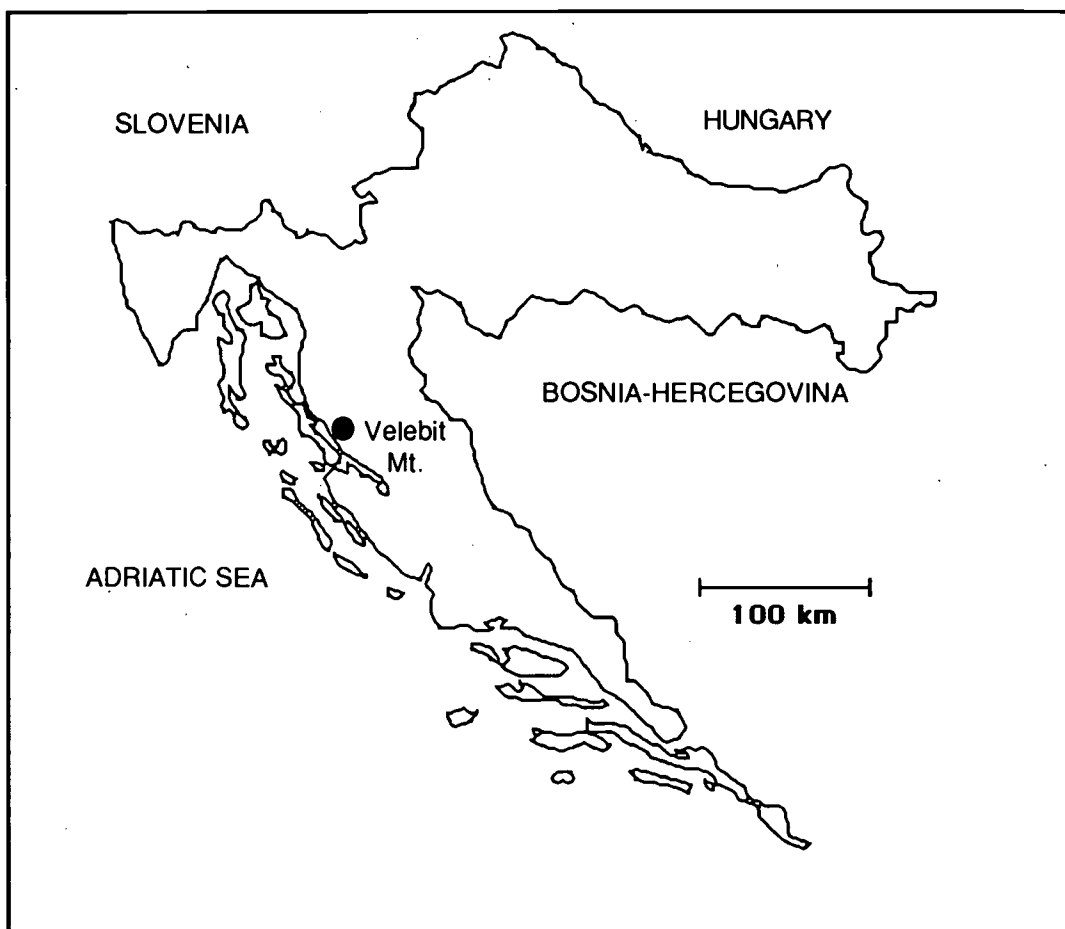
**Principal Monitoring and Research Themes:**

Limnology  
Wildlife population dynamics  
Ecology  
Pedology  
Archaeology

**No Named Contact for Biosphere Reserves**

**See Biosphere Reserve Manager**

**BIOSPHERE RESERVE LOCATION MAP  
CROATIA**



**Biosphere Reserve:** Velebit Mountain  
**Administrative Unit:** Velebit Nature Park  
**Administering Entity:** State government of Croatia  
**Location:** 44°15'-45'N, 15°00'-45'E  
**Area (hectares):** 150,000  
**Elevation Range:** 200 - 1,757m  
**Biome:** Evergreen sclerophyllous woodlands  
**Biogeographic Province:** Mediterranean Sclerophyll  
**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:**

**Address:** National Park Paklenica  
Zadar  
Croatia

**Telephone:** [38] (57) +

**Principal Monitoring and Research Themes:**

Geomorphology  
Cave studies  
Research on plant communities

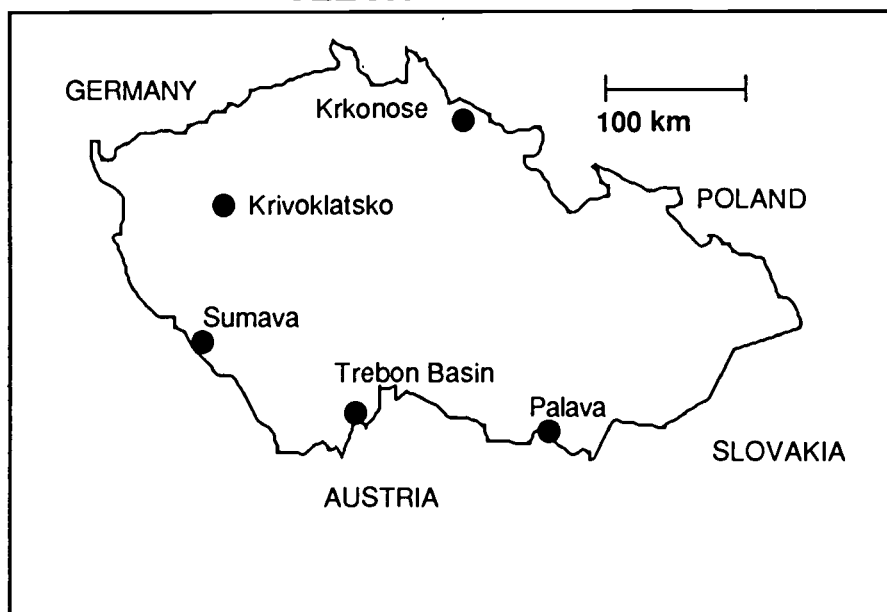
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Prof. Jan Jenik, Chairman  
Dr. Vera Hruskova  
Secretary, MAB National Committee

**Address:** Academy of Sciences of the Czech Republic  
Narodni tr. 3  
Prague 1  
Czech Republic 17000

**Telephone:** [42] (2) + 235-8065, ext. 420,  
[42] (2) + 297-941, ext. 3302

**FAX:** [42] (2) + 265-671

**BIOSPHERE RESERVE LOCATION MAP****CZECH REPUBLIC**

**Biosphere Reserve:** Krivoklatsko

**Administrative Unit:** Krivoklatsko Protected Landscape Area  
and Biosphere Reserve

**Administering Entity:** Krivoklatsko Administration/Sprava chráněné  
krajinne oblasti Krivoklatsko

**Location:** 50°00'N, 13°52'E

**Area (hectares):** 62,792

**Elevation Range:** 223 - 616m

**Biome:** Mixed mountain systems with complex  
zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Petr Stepanek

**Address:** Zbecno 5  
270 24  
Czech Republic

**Telephone:** [42] (313) + 98834

**Principal Monitoring and Research Themes:**

Biogeochemical cycling and energy transfer  
in small watersheds  
Abiotic, biotic and human environment  
Structure/function of forest ecosystems  
Threatened and rare plants  
Biogenetic studies  
Zoology/malacology  
Geology

**Biosphere Reserve:** **Krkonose**  
(see also Karkonosze Poland)

**Administrative Unit:** Krkonose National Park

**Administering Entity:** Biosphere Reserve Administration;  
Czech Ministry of the Environment

**Location:** 50 35'-49'N, 15 23'-53E

**Area (hectares):** 54,787

**Elevation Range:** 480 - 1,602m

**Biome:** Mixed mountain systems with complex  
zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Jan Stursa  
Jiri Flousek

**Address:** Vrchlabi - Zamek  
543 11  
Czech Republic

**Telephone:** [42] (438) + 21011  
**FAX:** [42] (438) + 23095

**Principal Monitoring and Research Themes:**

Impact of air pollution on montane, subalpine  
and alpine ecosystem: air and water quality,  
pedology, pedobiology, hydrology, hydrobiology,  
forestry, botany, entomology, vertebratology.  
Forest and agricultural management in the mountain  
areas



**Biosphere Reserve:** Palava

**Administrative Unit:** Palava Protected Landscape Area  
and Biosphere Reserve

**Administering Entity:** Palava Administration/Správa chráněné  
krajinne oblasti Palava

**Location:** 48°50'N, 16°40'E

**Area (hectares):** 8,017

**Elevation Range:** 163 - 550m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1988

**Administrative Officer**

**Contact:** Jiri Matuska

**Address:** Namesti 32  
Mikulov  
692 01  
Czech Republic

**Telephone:** [42] (625) + 2585

**Principal Monitoring and Research Themes:**

Climate  
Vegetation  
Soils hydrology  
Landscape dynamics  
Plant populations monitoring  
Animal populations monitoring  
Ecology of riverine forests (long-term)

**Biosphere Reserve:** Sumava

**Administrative Unit:** Sumava National Park and Biosphere Reserve

**Administering Entity:** Sumava Administration/Sprava narodniho parku a chranene krajinne oblasti Sumava

**Location:** 49°01'N, 13°34'E

**Area (hectares):** 167,117

**Elevation Range:** 470 - 1,378m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:** Jiri Kec

**Address:** Vimperk-Zamek  
385 01  
Czech Republic

**Telephone:** [42] (339) + 21335

**FAX:** [42] (339) + 22947

**Principal Monitoring and Research Themes:**

Multidisciplinary basic and applied research program

Air pollutant/acidic deposition

Climatological monitoring

Boreo-alpine insects of north and central European peatlands

Ecological monitoring

Hydrobiology of lake systems

**Biosphere Reserve:** Trebon Basin

**Administrative Unit:** Trebon Basin Protected Landscape  
Area/Biosphere Reserve

**Administering Entity:** Trebonsko Administration/Sprava chránené  
krajinne oblasti Trebonsko

**Location:** 49°00'N, 14°50'E

**Area (hectares):** 70,000

**Elevation Range:** 407 - 613m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Middle European Forests

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Jiri Janda

**Address:** Valy 121  
Trebon  
379 01  
Czech Republic

**Telephone:** [42] (333) + 3097

**Principal Monitoring and Research Themes:**

Abiotic, biotic, and human environment  
Structure/function of ecosystems  
Interrelationships of natural and  
agricultural ecosystems  
Algal ecology  
Plant communities  
Wetlands

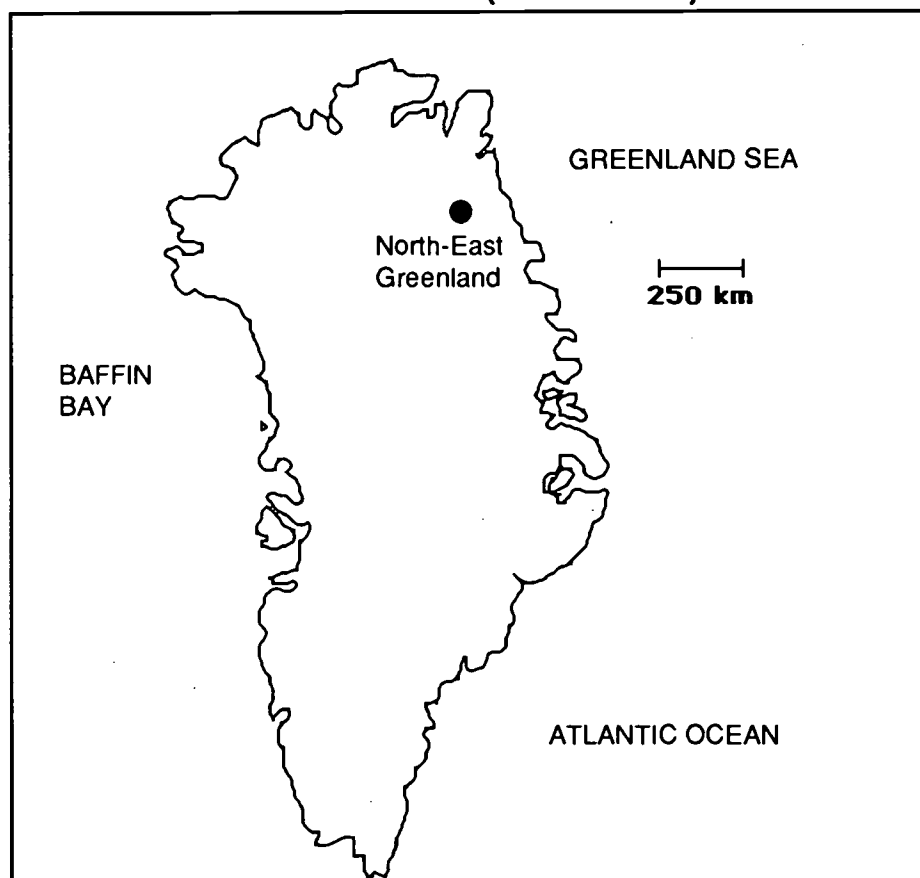
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Henning Thing

**Address:** Danish Polar Center  
Strandgade 100H  
DK-1401 Copenhagen  
Denmark

**Telephone:** [45] (32) + 880-100

**FAX:** [45] (32) + 880-101

**BIOSPHERE RESERVE LOCATION MAP****GREENLAND (DENMARK)**

**Biosphere Reserve:** North-East Greenland

**Administrative Unit:** North-East Greenland National Park

**Administering Entity:** National Park Administration

**Location:** 71-83°N, 11°39'-63'E

**Area (hectares):** 97,000,000

**Elevation Range:** 0 - 3,000m

**Biome:** Tundra  
(includes costal/marine component)

**Biogeographic Province:** Arctic desert and icecap

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer****Site Manager**

**Contact:** Peter Nielsen

Henning Thing

**Address:** c/o Directorate for Health  
and Environment  
P.O. Box 1170  
DK-3900 Nuuk  
Greenland

Danish Polar Center  
Strandgadke 100H  
DK-1401 Copenhagen  
Denmark

**Telephone:** [299] + 23000

[45] (32) + 880-100

**FAX:** [299] + 24693

[45] (32) + 880-101

**E-Mail:**

OMNET H. Thing/Omnet

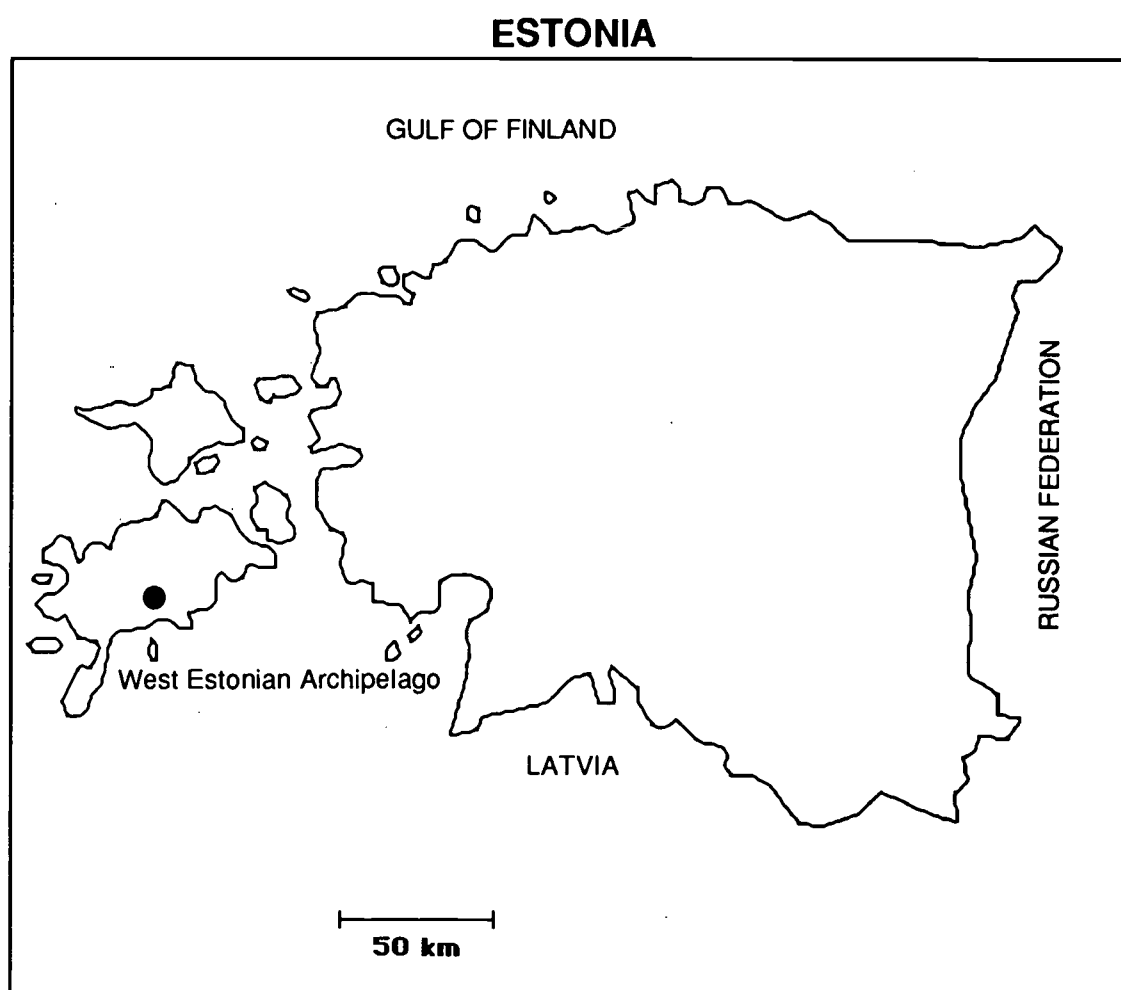
**Principal Monitoring and Research Themes:**

Littoral, limnetic, and terrestrial ecosystems  
Glaciology

**No Named Contact for Biosphere Reserves**

See Biosphere Reserve Manager

**BIOSPHERE RESERVE LOCATION MAP**



**Biosphere Reserve:** West Estonian Archipelago

**Administrative Unit:** Multiple Units

**Administering Entity:** State Biosphere Reserve Board (proposed)

**Location:** 58°30'N, 22°50'E

**Area (hectares):** 1,559,866  
(403,778 terrestrial, 1,156,078 marine)

**Elevation Range:** 0 - 63m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Boreonemoral

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:**

**Address:** West Estonian Archipelago Biosphere  
P.O. Box 209  
Kuressaare 203 300  
Estonia

**Telephone:** [7] (0142) + 2455-7975

**Principal Monitoring and Research Themes:**

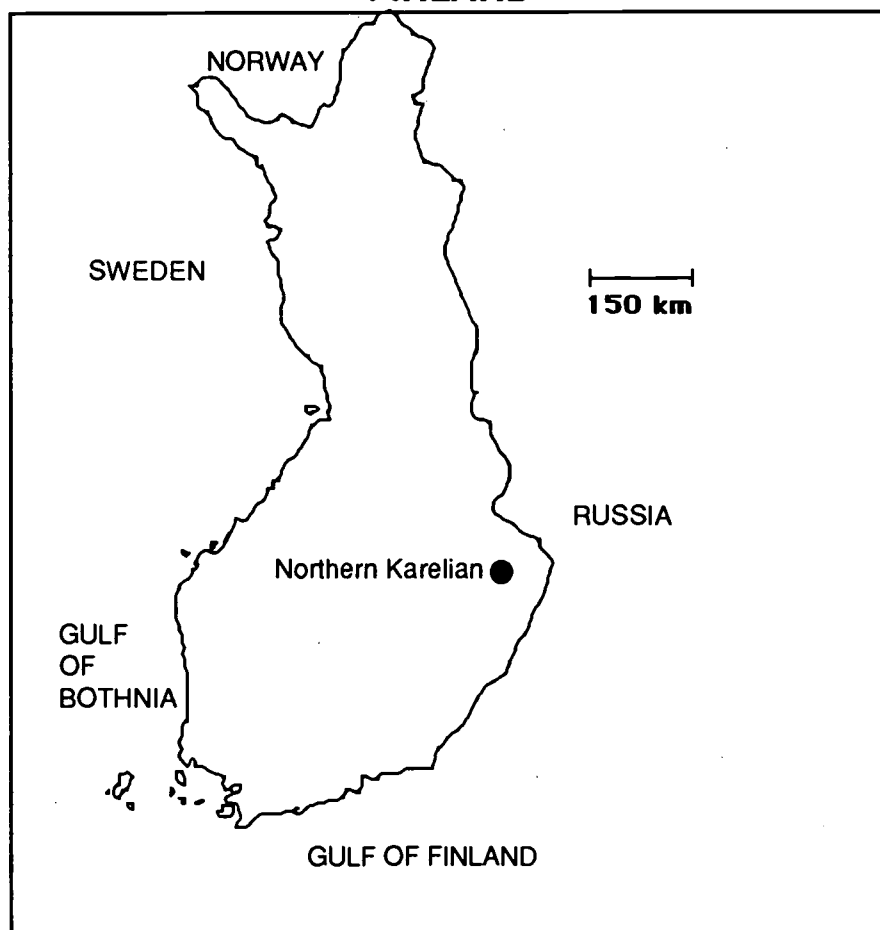
Biological inventory  
Land use and management  
Natural and human systems

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** M.Sc. Irma Peltola, Secretary  
Finnish National MAB Committee

**Address:** The Academy of Finland  
P.O. Box 57  
SF 00551 Helsinki  
Finland

**Telephone:** [358] (0) + 775-81  
**FAX:** [358] (0) + 775-8299

**BIOSPHERE RESERVE LOCATION MAP  
FINLAND**



**Biosphere Reserve:** Northern Karelian

**Administrative Unit:** Patvinsuo and Petkeljarvi National Parks,  
Koivusuo Strict Nature Reserve, and  
Kesonsuo Nature Reserve

**Administering Entity:** National Board of Forestry and private  
administration

**Location:** 63°N, 31°E

**Area (hectares):** 350,000

**Elevation Range:** 115 - 288m

**Biome:** Temperate needle-leaf forests or woodlands

**Biogeographical Province:** West Eurasian Taiga

**Year Designated as Biosphere Reserve:** 1992

**Site Manager**

**Contact:** Timo J. Hokkanen

**Address:** University of Joensuu  
Mekrijarvi Research Station  
SF-82900 Ilomantsi  
Finland

**Telephone:** [358] (974) + 46151

**FAX:** [358] (974) + 48188

**Principal Monitoring and Research Themes:**

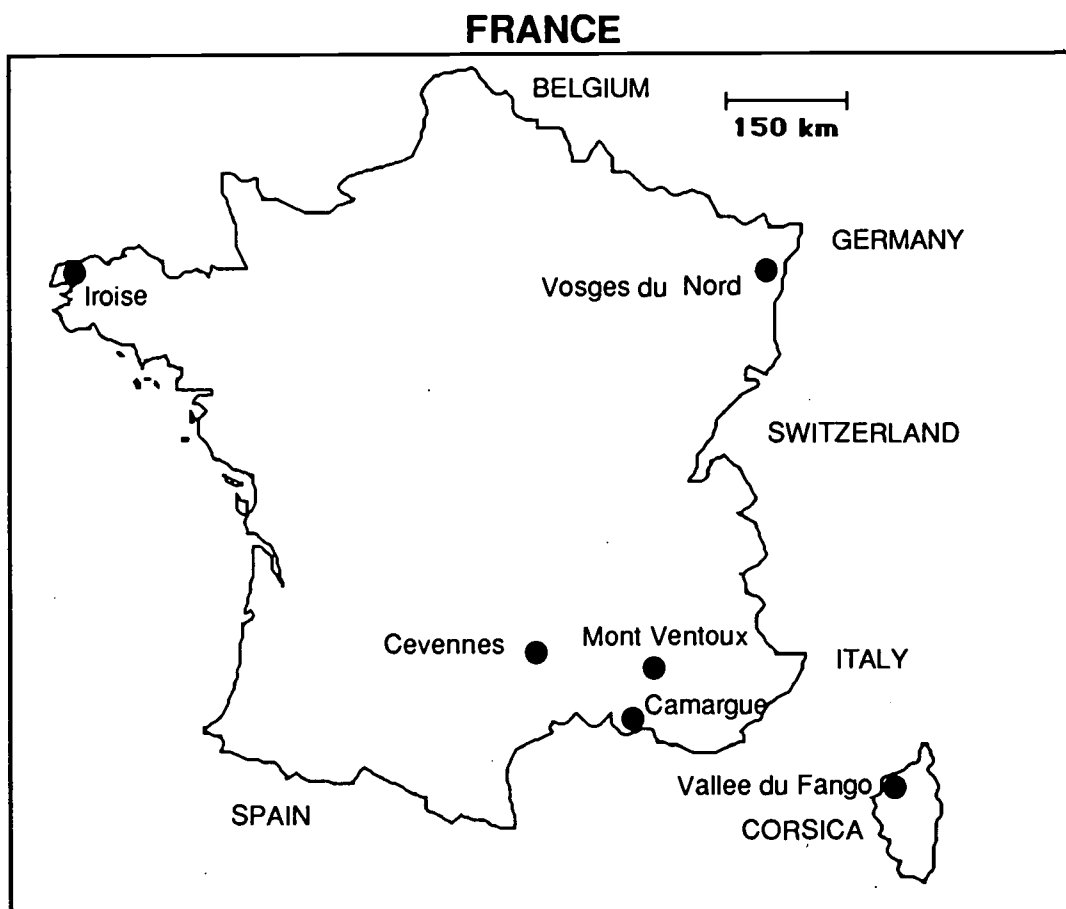
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Jacques Lecomte, Chairman  
Dr. Catherine Cibien, Scientific Secretary

**Address:** Ministere de l'Environnement  
14, Bd du General Leclerc  
92524 Neuilly-sur-Seine Cedex  
Paris  
France

**Telephone:** [33] (61) + 285-338

**FAX:** [33] (61) + 735-477

**BIOSPHERE RESERVE LOCATION MAP**

**Biosphere Reserve:** Atoll de Taiaro

**Administrative Unit:** Reserve Integrale W. A. Robinson  
and private lands

**Administering Entity:** Commission on Natural Monuments  
and Sites

**Location:** 15°44'S, 144°38'W

**Area (hectares):** 2,000

**Elevation Range:** 0 - 5m

**Biome:** Mixed island systems  
(includes costal/marine component)

**Biogeographic Province:** Southeastern Polynesian

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Conservator

**Address:** Management Committee Secretariat  
Commission on Monuments and Sites  
BP 866  
Papeete, Tahiti

**Telephone:**

**Principal Monitoring and Research Themes:**

Biological inventory of atoll and lagoon  
Atoll and lagoon ecosystems

**Biosphere Reserve:** Camargue

**Administrative Unit:** Reserve national du Camargue

**Administering Entity:** Reserve national du Camargue  
(national government)

**Location:** 43°30'N, 4°30'E

**Area (hectares):** 13,117

**Elevation Range:** 0 - 4m

**Biome:** Evergreen sclerophyllous woodlands  
(includes costal/marine component)

**Biogeographic Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** C. Coulet

**Address:** Domaine de la Capeliere  
Route des Salins de Giraud  
13200 Arles  
France

**Telephone:** [33] (90) + 970-097

**FAX:** [33] (90) + 970-097

**Principal Monitoring and Research Themes:**

Wetlands  
Bird populations

**Biosphere Reserve:** Cevennes

**Administrative Unit:** Parc national des Cevennes

**Administering Entity:** Parc national des Cevennes  
(multiple ownerships)

**Location:** 49°20'N, 1°40'E

**Area (hectares):** 323,000

**Elevation Range:** Maximum 1,700m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Monsieur Benoit  
Directeur du Parc national

**Address:** Parc national des Cevennes,  
Chateau de Florac  
B.P. 15  
P-48400 Florac  
France

**Telephone:** [33] (66) + 495-300

**FAX:** [33] (66) + 495-302

**Principal Monitoring and Research Themes:**

Park management research to support  
maintaining an equilibrium between  
human activities and the environment

**Biosphere Reserve:** Guadeloupe Archipelago

**Administrative Unit:** Guadeloupe National Park (2 units)

**Administering Entity:** Guadeloupe National Park administration

**Location:** 10 00'-27'N, 61 27'-48'W

**Area (hectares):** 69,000

**Elevation Range:** 0 - 1,467m

**Biome:** Mixed island systems  
(includes costal/marine component)

**Biogeographic Province:** Lesser Antillean

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Monsieur le Directeur du Parc National

**Address:** Parc National de la Guadeloupe  
Habitation Beausoleil - Monteran  
BP 13  
97120 Saint-Claude  
Guadeloupe

**Telephone:** [590] + 802-425

**FAX:** [590] + 800-546

**Principal Monitoring and Research Themes:**

Rain forest  
Coral reef

**Biosphere Reserve:** Iroise

**Administrative Unit:** Parc Naturel Regional d'Armorique

**Administering Entity:** Parc Naturel Regional d'Armorique  
(management board composed of  
representatives of municipalities,  
departments, and professional organizations)

**Location:** 48°24'N, 4°58'W

**Area (hectares):** 21,400

**Elevation Range:** -20m - 60m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1988

**Administrative Officer**

**Contact:** L. M. Guillon

**Address:** Parc Naturel Regional d'Armorique  
Menez Meur  
Hanvec  
29224 Daoulas  
France

**Telephone:** [33] (98) + 219-069

**FAX:** [33] (98) + 219-285

**Principal Monitoring and Research Themes:**

Ornithological observations  
Intertidal biodiversity  
Botanical observations  
Integrated cartography

**Biosphere Reserve:** Mont Ventoux

**Administrative Unit:**

**Administering Entity:** Syndicat mixte d'aménagement et d'équipement du Mont Ventoux

**Location:** 44°10'N, 5°17'E

**Area (hectares):** 69,956

**Elevation Range:** 200 - 1,909m

**Biome:** Evergreen sclerophyllous woodland  
(ecotonal with temperate broad-leaf forest)

**Biogeographic Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:** M. le Président du Syndicat mixte d'aménagement du Ventoux

**Address:** Conseil General du Vaucluse  
B.P. 318  
84021 Avignon  
France

**Telephone:** [33] (90) + 863-333

**FAX:** [33] (90) + 827-527

**Principal Monitoring and Research Themes:**

Hydrology



**Biosphere Reserve:** Vallee du Fango  
**Administrative Unit:** Parc Naturel Regional de Corse  
**Administering Entity:** Parc Naturel Regional de Corse  
**Location:** 42°23'N, 8°46'E  
**Area (hectares):** 23,400  
**Elevation Range:** 0 - 2,556m  
**Biome:** Evergreen sclerophyllous woodlands  
**Biogeographic Province:** Mediterranean Sclerophyll  
**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Leenhardt  
**Address:** Rue Fiorella  
B.P. 417  
F-20184 Ajaccio Cedex  
France  
**Telephone:** [33] (95) + 507-013  
**FAX:** [33] (95) + 218-817

**Principal Monitoring and Research Themes:**

Multidisciplinary ecosystem  
research on the maquis  
Meteorological/hydrological monitoring  
Sclerophyllous forest

**Biosphere Reserve:** Vosges du Nord

**Administrative Unit:** Parc Naturel Regional des Vosges du Nord

**Administering Entity:** Le Syndicat Mixte du Parc Naturel  
Regional des Vosges du Nord

**Location:** 48°45'-49°11'N, 7°17'-7°55'E

**Area (hectares):** 120,200

**Elevation Range:** 200 - 580m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1988

**Administrative Officer**

**Contact:** B. Roch, Directeur

**Address:** Parc Naturel Regional des Vosges du Nord  
Chateau de la Petite Pierre  
P-67290 La Petite Pierre  
France

**Telephone:** [33] (88) + 704-655

**FAX:** [33] (88) + 704-104

**Principal Monitoring and Research Themes:**

Peat bog/pine forests  
Biological inventories  
Vegetation studies, including ecological  
succession and regeneration, role of fire  
Aquatic ecosystems (long-term)  
Agricultural/silviculture  
Impact of tourism

## NATIONAL CONTACT FOR BIOSPHERE RESERVES

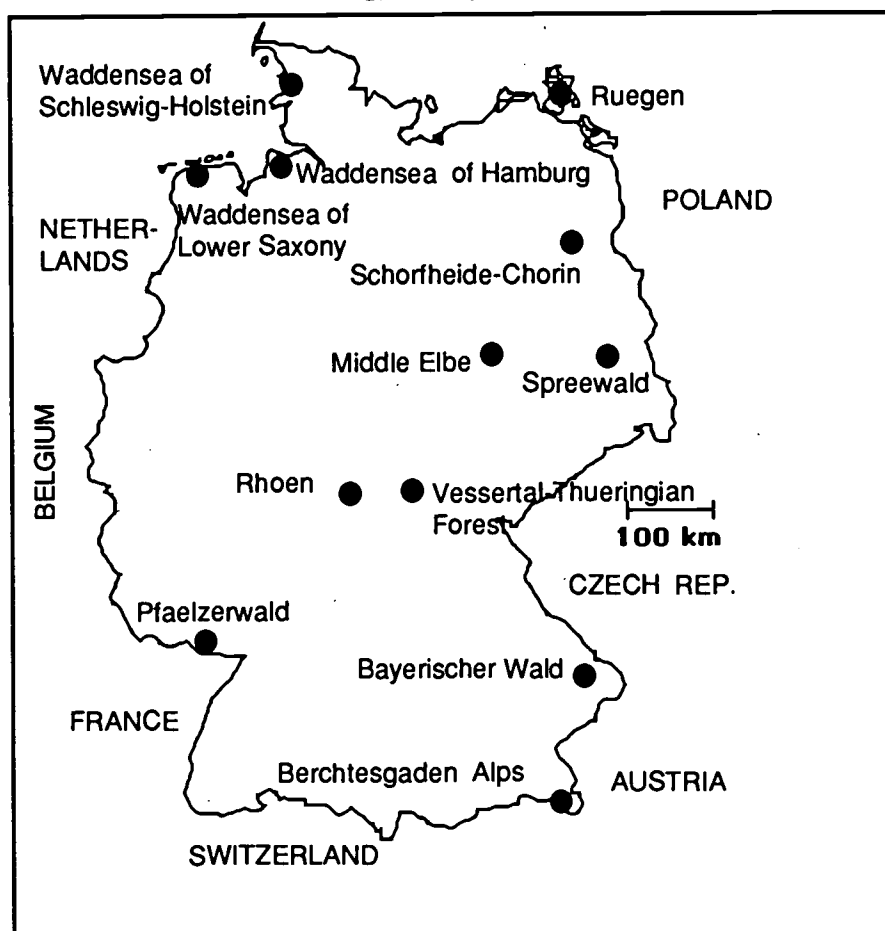
**Name:** Mr. Juergen Nauber  
Secretary General, German MAB National Committee

**Address:** c/o Bundesforschungsanstalt für Naturschutz und  
Landschaftsoekologie  
Konstantinstr. 110  
D-53179 Bonn 2  
Germany

**Telephone:** [49] (228) + 849-1138  
**FAX:** [49] (228) + 849-1200

## BIOSPHERE RESERVE LOCATION MAP

## GERMANY



**Biosphere Reserve:** Bayerischer Wald

**Administrative Unit:** Bayerischer Wald National Park

**Administering Entity:** Nationalparkverwaltung Bayerischer Wald

**Location:** 48°55'N, 13°23'E

**Area (hectares):** 13,300

**Elevation Range:** 666 - 1,453m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1981

**Administrative Officer**

**Contact:** Hans Bibelriether

**Address:** Bayerischer Wald National Park  
Freyunger Str. 2  
D-94487 Grafenau  
Germany

**Telephone:** [49] (8552) + 96000

**FAX:** [49] (8552) + 1394

**Principal Monitoring and Research Themes:**

Climatology  
Soil studies  
Landscape analysis  
Effects of regional tourism  
Hydrological modelling, pollutant input  
Ecological succession in areas of windthrow  
Effects of air pollutants in small watersheds  
Integrated environmental and ecological  
monitoring  
Avian and ungulate population dynamics

**Biosphere Reserve:** Berchtesgaden Alps

**Administrative Units:** Berchtesgaden National Park

**Administering Entity:** National Park Administration  
Berchtesgaden

**Location:** 13°00'E, 47°36'N

**Area (hectares):** 16,800

**Elevation Range:** 471 - 2,713m

**Biome:** Mixed mountain systems with complex  
zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:** Hubert Zierl

**Address:** Doktorberg 6  
D-83471 Berchtesgaden  
Germany

**Telephone:** [49] (8652) + 61068

**FAX:** [49] (8652) + 64854

**Principal Monitoring and Research Themes:**

Integrated ecosystem monitoring  
(biotic, abiotic, human systems)

**Biosphere Reserve:** Middle Elbe River

**Administrative Units:** Multiple units (Steckby-Loedderitz National Nature Reserve, Dessau-Woerlitzer Cultural Landscape)

**Administering Entity:** Verwaltung

**Location:** 51°52'N, 12°12'E

**Area (hectares):** 43,000

**Elevation Range:** 50 - 75m

**Biome:** Temperate broad-leaf forest

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Peter Hentschel

**Address:** Verwaltung  
Biosphaerenreservat Mittlere Elbe  
Kapenmuehle, PSF 118  
D-06813 Dessau  
Germany

**Telephone:** [49] (340) + 214-503

**FAX:** [49] (340) + 214-503

**Principal Monitoring and Research Themes:**

Inventory of fauna (emphasis on avifauna and beavers)  
Pest control research  
Structure and dynamics of forest ecosystems  
Soil and vegetation mapping

**Biosphere Reserve:** Pfaelzerwald  
**Administrative Units:** Pfaelzerwald Nature Park  
**Administering Entity:** Verein Naturpark Pfaelzerwald e.v./  
Bad Duerkheim

**Location:**

**Area (hectares):** 179,800

**Elevation Range:**

**Biome:** Temperate broad-leaf forest

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Werner Dexheimer

**Address:** Hermann Schaefer Strasse 17  
D-67098 Bad Duerkheim  
Germany

**Telephone:** [49] (6322) + 66265

**FAX:** [49] (6322) + 1214

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Rhoen

**Administrative Unit:** Multiple units (3)

**Administering Entity:** Rhoen Biosphere Reserve Department -  
Managed through a state treaty between  
Bavaria, Hessen, and Thuringia

**Location:** 10°05'E, 50°35'N

**Area (hectares):** 130,488

**Elevation Range:** 300 - 950m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1991

**Thuringia****Bavaria****Hessen**

**Contact:** Karl Friedrich Abe

Doris Pokorny

Ewald Sauer

**Address:** Mittelsdorferstrasse  
D-98634 Kaltensundheim  
Germany

Rhoenbergstr. 16  
D-97656 Oberelsbach  
Germany

Georg-Meilinger-Str.  
D36115 Ehrenberg  
Germany

**Telephone:**[49] (36946) + 753

[49] (9774) + 1741

[49] (6683) + 302

**FAX:** [49] (36946) + 753

[49] (9774) + 1742

[49] (6683) + 506

**Principal Monitoring and Research Themes:**



**Biosphere Reserve:** Ruegen  
**Administrative Unit:** Multiple ownerships  
**Administering Entity:** Ruegen Biosphere Reserve  
**Location:** 54°20'N, 13°39'E  
**Area (hectares):** 22,800  
**Elevation Range:** -30 - 106m  
**Biome:** Temperate broad-leaf forest  
**Biogeographic Province:** Middle European Forest  
**Year Designated as a Biosphere Reserve:** 1991

**Administrative Officer**

**Contact:**

**Address:** Biosphaerenreservat Suedost-Ruegen  
Nr. 1 a  
D-18586 Middelhagen  
Germany

**Telephone:** [49] (38303) + 25068  
**FAX:** [49] (38303) + 25068

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Schorfheide-Chorin

**Administrative Unit:**

**Administering Entity:** Schorfheide-Chorin Biosphere Reserve

**Location:** 13°40'E, 53°00'N

**Area (hectares):** 125,891

**Elevation Range:** 2 - 138m

**Biome:** Temperate broad-leaf forest

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:** Eberhard Henne

**Address:** Verwaltung  
Biosphaerenreservat Schorfheide-Chorin  
Haus am Stadtsee  
D-16225 Eberswalde-Finow  
Germany

**Telephone:** [49] (3334) + 22375

**FAX:** [49] (3334) + 22376

**Principal Monitoring and Research Themes:**

Air pollutants  
Anthropogenic impacts  
Complex analysis of ecosystems  
Selection of indicators of ecosystem change  
Scientific data to support ecosystem management  
Landscape models and standards for nature protection

**Biosphere Reserve:** Spreewald  
**Administrative Unit:** Multiple units (2)  
**Administering Entity:** Verwaltung Spreewald  
**Location:** 51°88'N, 13°81'E  
**Area (hectares):** 48,460  
**Elevation Range:** 44 - 144m  
**Biome:** Temperate broad-leaf forests  
**Biogeographic Province:** Middle European Forest  
**Year Designated as Biosphere Reserve:** 1991

**Administrative Officer**

**Contact:** Manfred Werban  
**Address:** Schulstrasse 9  
D-03222 Luebbenau/Spreewald  
Germany  
**Telephone:** [49] (3542) + 3748  
**FAX:** [49] (3542) + 3748

**Principal Monitoring and Research Themes:**

Evaluation of habitats  
Environmental monitoring  
Water quality monitoring  
Bioindicators in aquatic ecosystems  
Inventory/monitoring of bats, birds,  
and small mammals

**Biosphere Reserve:** Vessertal-Thuringian Forest

**Administrative Unit:** Multiple units (Vessertal Nature Reserve and multiple ownerships in Thuringian Forest)

**Administering Entity:** Thuringian Environment Ministry

**Location:** 50°36'N, 10°48'E

**Area (hectares):** 17,000

**Elevation Range:** 420 - 982m

**Biome:** Temperate broad-leaf forest

**Biogeographic Province:** Middle European Forest

**Year Designated as a Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Harald Lange

**Address:** Verwaltung des Biosphaerenreservates  
Vessertal-Thueringer Wald  
An der Wilke 4  
D-98553 Breitenbach/b.  
Schleusingen  
Germany

**Telephone:** [49] (36841) + 8187

**FAX:** [49] (36841) + 8187

**Principal Monitoring and Research Themes:**

Inventory, flora	Study of succession processes
Recreation and tourism	Inventory, fauna; especially invertebrates
Forest ecosystems	Management research on conservation of biological diversity

**Biosphere Reserve:** Waddensea of Hamburg

**Administrative Unit:** Waddensea National Park of Hamburg

**Administering Entity:** Environment Ministry

**Location:** 53°50'49"N - 53°58'48"N, 8°17'30"E - 8°34'39"E

**Area (hectares):** 11,700

**Elevation Range:** -17.5 - 7m

**Biome:** Temperate needle-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Klaus Janke

**Address:** Umweltbehoerde-Naturschutzamt  
Steindamm 22  
D-20099 Hamburg  
Germany

**Telephone:** [49] (40) + 2486-3945

**FAX:** [49] (40) + 2486-2579

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Waddensea of Lower Saxony

**Administrative Units:** Waddensea National Park of Lower Saxony

**Administering Entity:** National Park Administration,  
Wilhelmshaven

**Location:** 53°37'N - 53°55'N, 6°35'E - 8°39'E

**Area (hectares):** 240,000

**Elevation Range:** -10 - 24.5m`

**Biome:** Temperate broad-leaf forest  
(includes costal/marine component)

**Biogeographic Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Claus D. Helbing

**Address:** Virchowstrasse 1  
D-26382 Wilhelmshaven  
Germany

**Telephone:** [49] (4421) + 408-270

**FAX:** [49] (4421) + 408-280

**Principal Monitoring and Research Themes:**

Avian studies

**Biosphere Reserve:** Waddensea of Schleswig-Holstein

**Administrative Unit:** National Park Schleswig-Holstein  
Waddensea

**Administering Entity:** Regional Office of the National Park  
Schleswig-Holstein Waddensea

**Location:** 53°52'-55°04'N, 08°13'-09°00'E

**Area (hectares):** 285,000

**Elevation Range:** -30 - 112m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographic Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:** Friedrich Heddies Andresen

**Address:** Nationalparkamt  
Schlossgarten 1  
D-25832 Toenning  
Germany

**Telephone:** [49] (4861) + 61691

**FAX:** [49] (4861) + 459

**Principal Monitoring and Research Themes:**

Waddensea ecosystem and human  
activities

Protection of marine and semi-terrestrial  
habitats

Changes in abiotic, biotic and socio-  
ecological parameters

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Mr. Konstantinos Tsamados  
President, Greek National Commission for UNESCO

**Address:** 3, Akadimias Street  
106 71 Athens  
Greece

**Telephone:** [30] (1) + 362-0736  
**FAX:** [30] (1) + 360-9716

**BIOSPHERE RESERVE LOCATION MAP  
GREECE**



**Biosphere Reserve:** Gorge of Samaria  
**Administrative Unit:** Gorge of Samaria National Park  
**Administering Entity:** Forest Directorate of Chania  
**Location:** 35°13'-35°18'N, 23°54'-23°58'E  
**Area (hectares):** 4,840  
**Elevation Range:** 0 - 2,116m  
**Biome:** Evergreen sclerophyllous woodlands  
(includes costal/marine component)  
**Biogeographical Province:** Mediterranean Sclerophyll  
**Year Designated as Biosphere Reserve:** 1981

**Administrative Officer**

**Contact:** John Fotakis  
**Address:** Chrisopigi  
73100 Chania  
Greece  
**Telephone:** [30] (821) + 22287  
**FAX:** [30] (821) + 2195

**Principal Monitoring and Research Themes:**

Plant and animal populations, including  
wild goats

**Biosphere Reserve:** Mount Olympus  
**Administrative Unit:** Mount Olympus National Park  
**Administering Entity:** Forest Directorate of Picria  
**Location:** 40°02'-40°07'N, 22°18'-22°26'E  
**Area (hectares):** 4,000  
**Elevation Range:** 400 - 2,914m  
**Biome:** Evergreen sclerophyllous woodlands  
**Biogeographical Province:** Mediterranean Sclerophyll  
**Year Designated as Biosphere Reserve:** 1981

**Administrative Officer**

**Contact:** Pavlos Andredakis  
**Address:** Terma Ipiron  
60100 Katerini  
Greece  
**Telephone:** [30] (351) + 23720  
**FAX:** [30] (351) + 32111

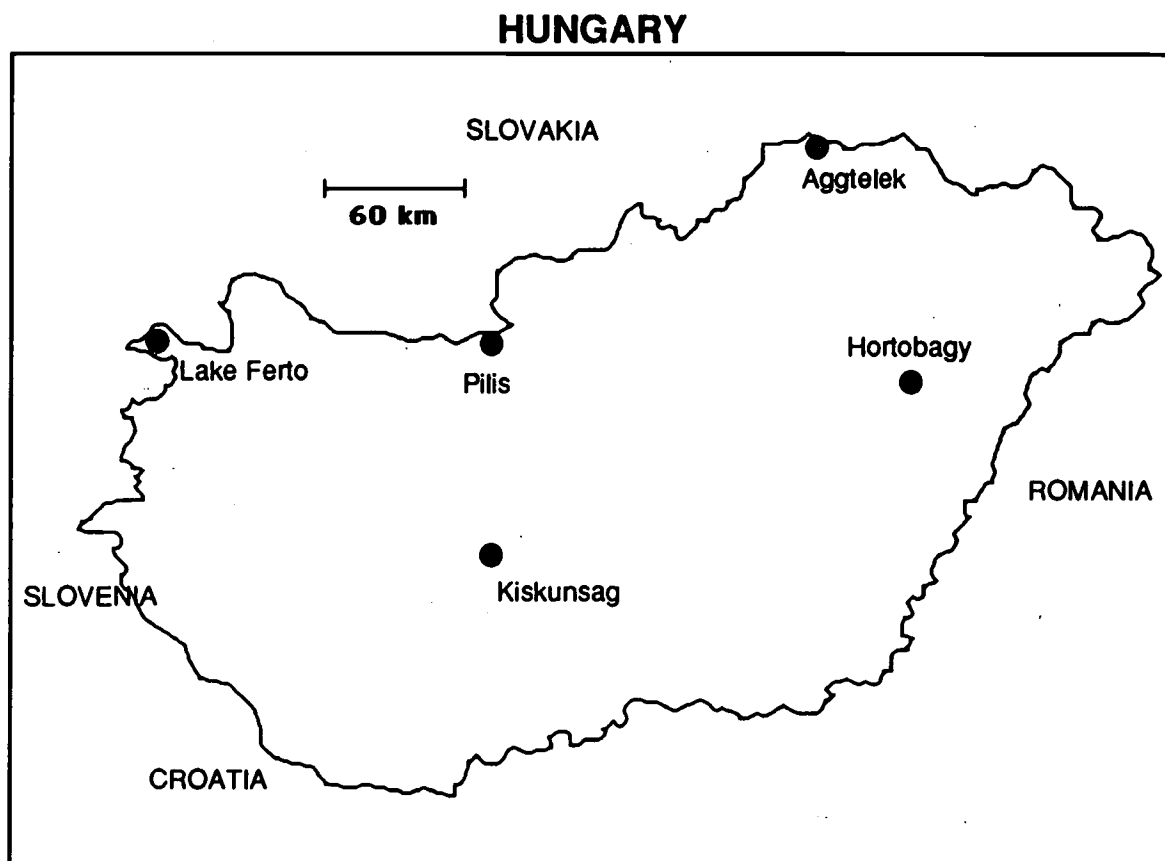
**Principal Monitoring and Research Themes:**

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Arpad Berczik  
Secretary, Hungarian MAB National Committee

**Address:** Puskin u. 3  
H-1088 Budapest  
Hungary

**Telephone:** [36] (11) + 189 833, [36] (11) + 189 203  
**FAX:** [36] (11) + 128-483

**BIOSPHERE RESERVE LOCATION MAP**

**Biosphere Reserve:** Aggtelek  
**Administrative Unit:** Aggtelek National Park  
**Administering Entity:** Aggteleki Nemzeti Park Igazgatósága  
**Location:** 48°30'N, 20°36'E  
**Area (hectares):** 19,247  
**Elevation Range:** 150 - 600m  
**Biome:** Temperate broad-leaf forests  
**Biogeographical Province:** Middle European Forest  
**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:**

**Address:** Aggteleki Nemzeti Park  
Igazgatósága  
Aggtelek 3759  
Hungary

**Telephone:** [36] (46) +

**Principal Monitoring and Research Themes:**

Faunal studies  
Geology  
Hydrogeography (karst)

**Biosphere Reserve:** Hortobagy

**Administrative Unit:** Hortobagy National Park

**Administering Entity:** National Authority for Environment  
Protection and Nature Conservation

**Location:** 47°25'-47°15'N, 20°54'-21°21'E

**Area (hectares):** 52,000

**Elevation Range:** 86 - 98m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Pannonian

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:**

**Address:** Management of Hortobagy  
National Park  
Boszormenyu ut 138  
Debrecen  
Hungary

**Telephone:** [36] (52)

**Principal Monitoring and Research Themes:**

Synecology of flora, fauna, and soils  
Ecology of pools, artificial water bodies,  
alkali lowlands, salt steppes  
Ecology of breeding and migratory birds

**Biosphere Reserve:** Kiskunsag

**Administrative Unit:** Kiskunsag National Park

**Administering Entity:** National Authority for Environment  
Protection and Nature Conservation

**Location:** 47°12'-46°36'N, 19°04'-19°39'E

**Area (hectares):** 22,095

**Elevation Range:** 94 - 127m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Pannonian

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:**

**Address:** Management of Kiskunsag National Park  
Liszt Ferenc u 19  
6001 Kecskemet  
Hungary

**Telephone:** [36] (76) +

**Principal Monitoring and Research Themes:**

Air quality and climatology  
Nesting and migratory birds

**Biosphere Reserve:** Lake Ferto

**Administrative Unit:** Nature Park Lake Ferto

**Administering Entity:** OKTH Sopron Nature Conservancy  
Inspectorate

**Location:** 47°0'N, 16°43'E

**Area (hectares):** 12,542

**Elevation Range:** 114 - 261m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Pannonian

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:**

**Address:** OKTH Sopron Nature Conservancy  
Inspectorate  
Kofarago ter 9  
9400 Sopron  
Hungary

**Telephone:** [36] (99) +

**Principal Monitoring and Research Themes:**

Lake conditions/human effects monitoring  
(with Austria)  
Climate and hydrological monitoring  
Water conservation research  
Management research on flora and fauna  
Tourism

**Biosphere Reserve:** Pilis

**Administrative Unit:** Pilis Landscape Protection Area

**Administering Entity:** Directorate of State Parkforest Pilis

**Location:** 47°45'N, 18°49'E

**Area (hectares):** 23,000

**Elevation Range:** 106 - 757m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1980

**Administrative Officer**

**Contact:**

**Address:** Directorate of State Parkforest  
Pilis  
Matyas Kiraly ut 4  
H-2025 Visegrad  
Hungary

**Principal Monitoring and Research Themes:**

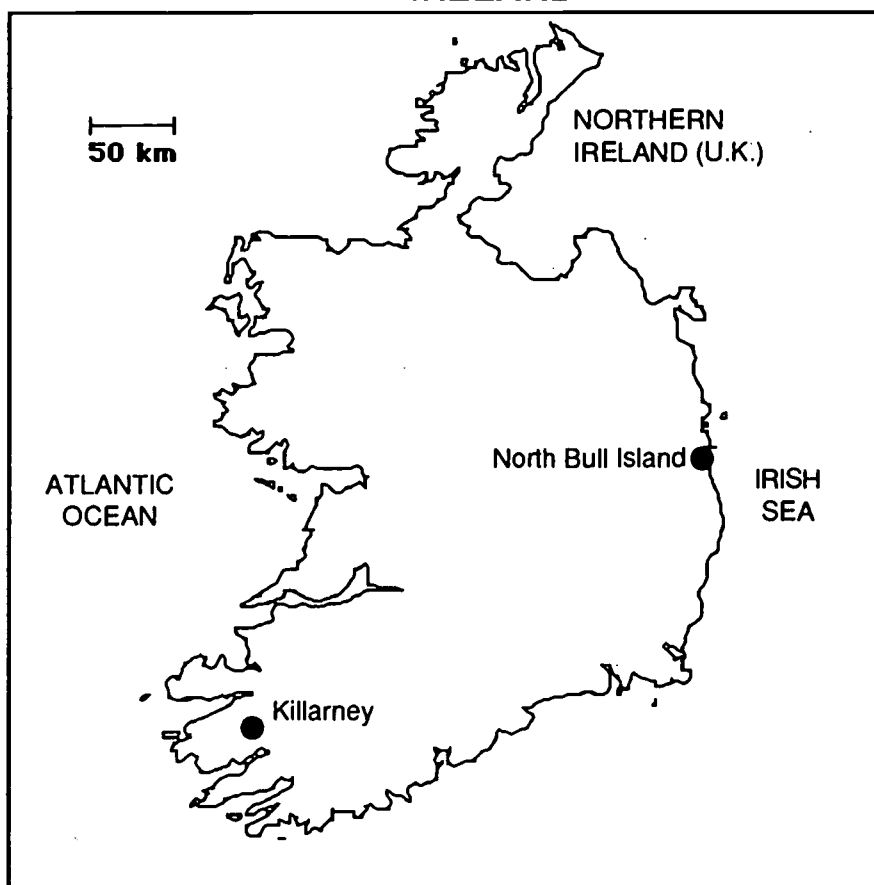
Meteorological monitoring  
Impact of tourism/land uses on forests,  
aquatic resources, and soils  
Environmental education



**No Named National Contact for Biosphere Reserves**

**See Individual Biosphere Reserve Managers**

**BIOSPHERE RESERVE LOCATION MAP  
IRELAND**



**Biosphere Reserve:** Killarney

**Administrative Unit:** Killarney National Park

**Administering Entity:** National Park and Wildlife Service, Office of Public Works, St. Stephens Green

**Location:** 52°01'N, 9°35'W

**Area (hectares):** 8,308

**Elevation Range:** 22 - 842m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** British Islands

**Year Designated as Biosphere Reserve:** 1982

**Administrative Officer**

**Contact:** Park Superintendent

**Address:** Killarney National Park  
Muckross, Killarney  
County Kerry

**Telephone:** [353] (64) + 31947

**FAX:** [353] (64) + 33926

**Principal Monitoring and Research Themes:**

Limnology  
Water Pollutants  
Wildlife Population Dynamics  
Comparative Ecological Research  
Fire History and Effects

**Biosphere Reserve:** North Bull Island

**Administrative Unit:** North Bull Island Nature Reserve

**Administering Entity:** Dublin Corporation

**Location:** 53°17'N, 06°05'W

**Area (hectares):** 500

**Elevation Range:** 0 - 10m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographical Province:** British Islands

**Year Designated as Biosphere Reserve:** 1981

**Administrative Officer**

**Contact:** G. Barry

**Address:** Dublin Corporation  
City Hall  
Dublin 2  
Ireland

**Telephone:** [353] (1) + 338-341, [353] (1) + 331-941

**FAX:** [353] (1) + 333-926

**Principal Monitoring and Research Themes:**

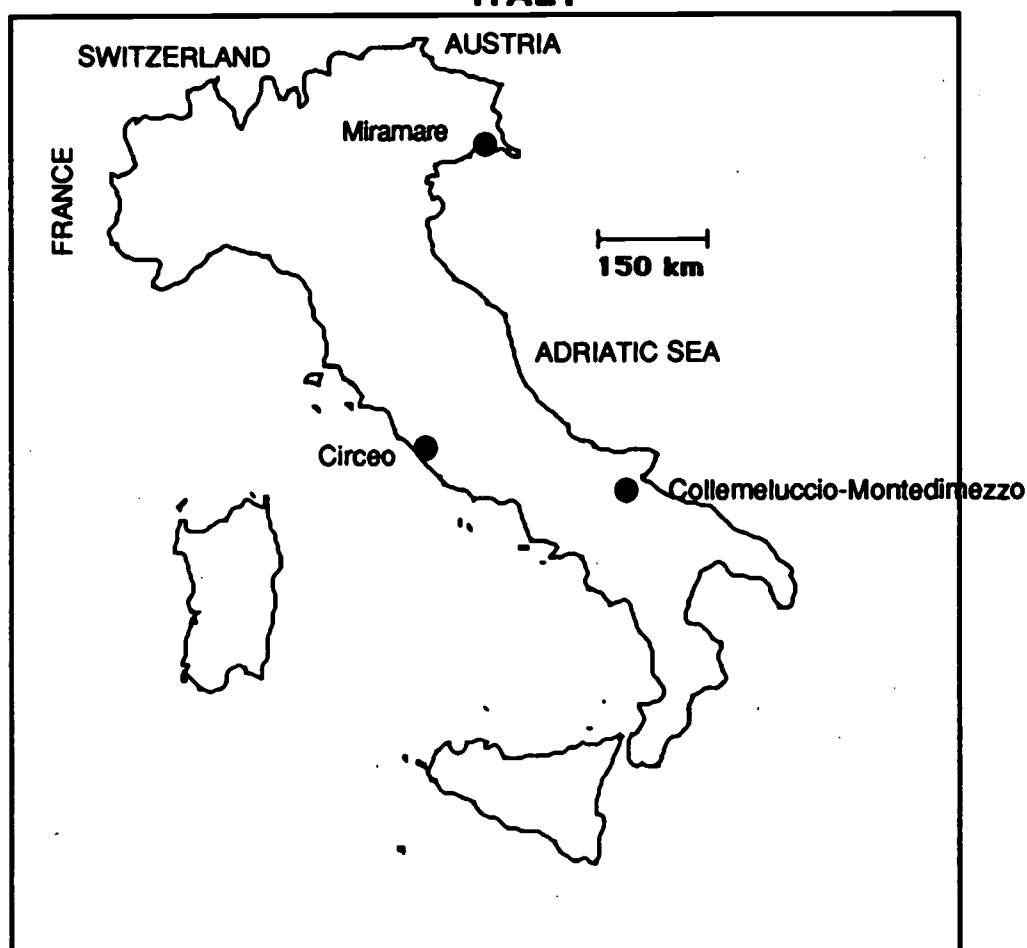
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Enrico Ortese

**Address:** EuroMAB Italy  
Parco Nazionale Circeo  
Via Carlo Alberto 107  
04016 Sabaudia (LT)  
Italy

**Telephones:** [39] (77) + 357-251, [39] (77) + 357-252

**FAX:** [39] (77) + 510-503

**BIOSPHERE RESERVE LOCATION MAP****ITALY**

**Biosphere Reserve:** Circeo

**Administrative Unit:** Foresta Demaniale del Circeo (includes 4 nature reserves)

**Administering Entity:** Ministero Agricoltura e Foreste, Gestione ex A.S.F.D. Uff. Amm.ne Sabaudia

**Location:** 41°20'N, 13°35'E

**Area (hectares):** 3,260

**Elevation Range:** 0 - 54m

**Biome:** Evergreen sclerophyllous woodlands

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Enrico Ortese

**Address:** Riserva MAB Foresta Demaniale del Circeo  
c/o Parco Nazionale del Circeo  
Via Carlo Alberto, 107  
Sabaudia, LT  
Italy

**Telephone:** [39] (773) + 57251, [39] (773) + 57252

**FAX:** [39] (773) + 510-503

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Collemeluccio-Montedimezzo

**Administrative Units:** Collemeluccio and Montedimezzo Nature Reserves

**Administering Entity:** Ministero Agricoltura e Foreste

**Location:** 41°44'N, 14°15'E (Collemeluccio),  
41°35'N, 14°15'E (Montedimezzo)

**Area (hectares):** 478

**Elevation Range:** 834 - 1,284m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographical Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Luigi Pagano

**Address:** Riserva MAB Collemeluccio-Montedimezzo  
Ufficio Amministrazione Foreste  
Demaniaci  
Comando Stazione Montedimezzo  
S. Pietro Avellana  
86088 Isernia  
Italy

**Telephone:** [39] (865) + 3935

**FAX:** [39] (865) + 413-491

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Miramare  
**Administrative Unit:** Miramare Marine Park  
**Administering Entity:** World Wildlife Fund - Italia  
**Location:** 45°42'N, 13°42'E  
**Area (hectares):** 60  
**Elevation Range:** -18 - 40m  
**Biome:** Evergreen sclerophyllous forests  
(includes costal/marine component)  
**Biogeographical Province:** Mediterranean Sclerophyll  
**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Graziado Benedetti  
**Address:** Riserva Marina di Miramare  
Viale Miramare 349  
36016 Trieste  
Italy  
**Telephone:** [39] (40) + 224-147  
**FAX:** [39] (40) + 224-147

**Principal Monitoring and Research Themes:**

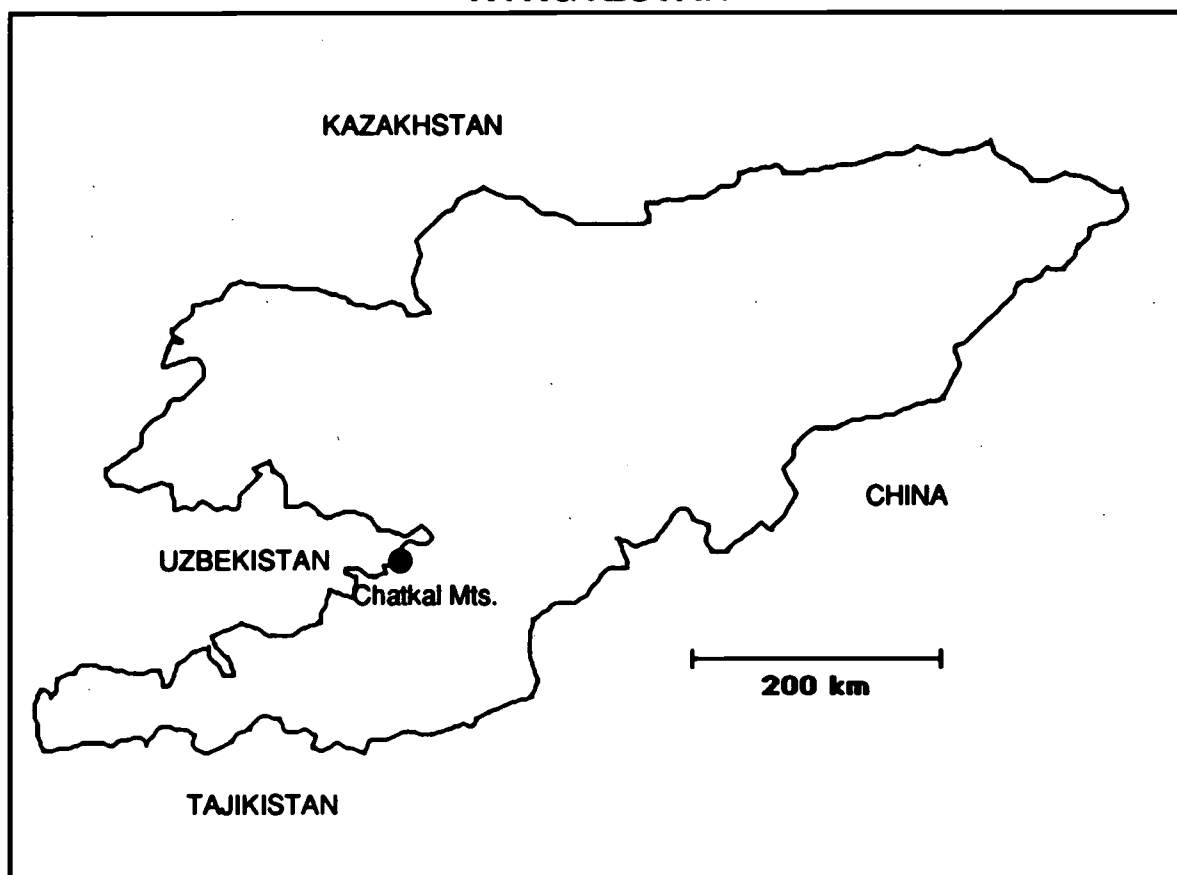
Sea water chemistry  
Plankton studies  
Experimental fish breeding

**No Named National Contact for Biosphere Reserves**

**See Biosphere Reserve Manager**

**BIOSPHERE RESERVE LOCATION MAP**

**KYRGYZSTAN**





**Biosphere Reserve:** Chatkal Mountains  
(see also Uzbekistan)

**Administrative Units:** Sary Chelekskiy Zapovednik

**Administering Entities:** State government

**Location:** 41°47'N, 71°54'E

**Area (hectares):** 23,900

**Elevation Range:** 1,200 - 4,300m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Pamir-Tian-Shan Highlands

**Year Designated as Biosphere Reserve:** 1978

**Site Manager**

**Contact:**

**Address:** Sary-Chelek Zapovednik  
P/O Arkit  
Dzhangi-dzhol' District  
Osh Region  
Kyrgyzstan 716705

**Principal Monitoring and Research Themes:**

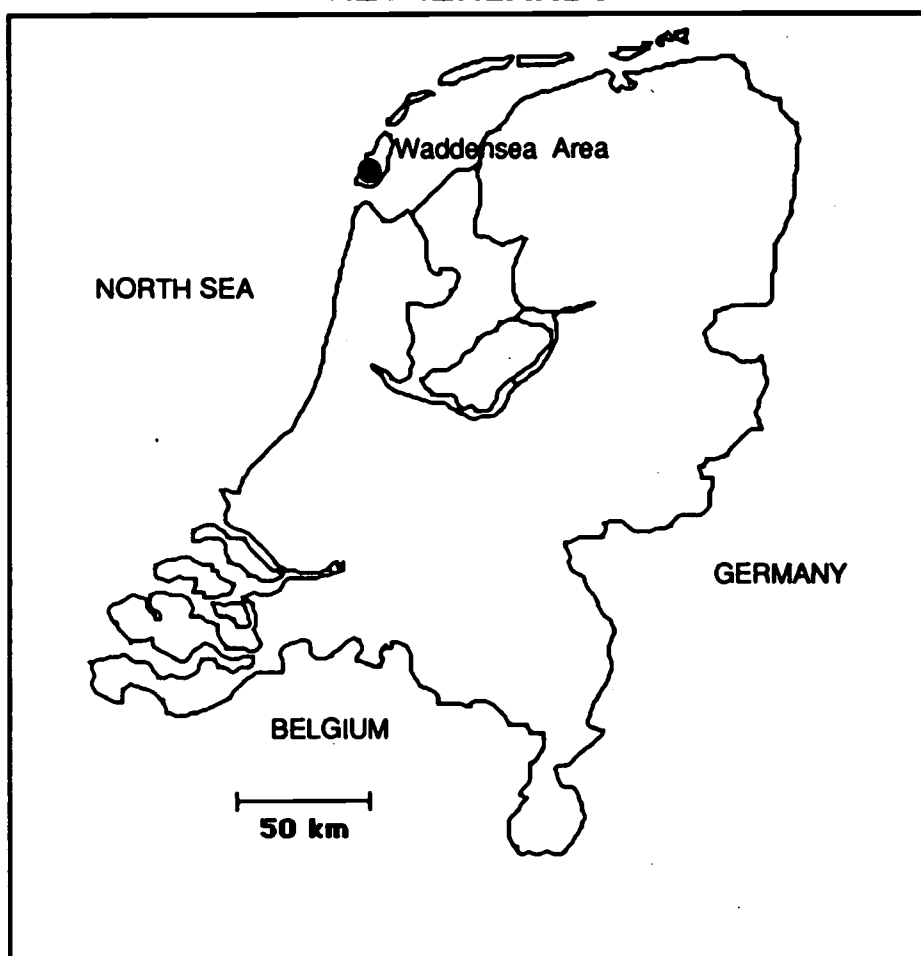
Floristic and faunal inventory  
Multimedia pollutant monitoring  
Reforestation research  
Ecology of woody plants/commercial species  
Ecology of birds and mammals.

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. H.M. van Emden

**Address:** Royal Netherlands Academy of Sciences  
The Netherlands MAB/SCOPE/LGBP Committee  
Postbox 19121  
1000 gc Amsterdam  
The Netherlands

**Telephone:** [31] (20) + 551-0727  
**FAX:** [31] (20) + 620-4941  
**E-Mail:** memocom: NLX 1238

**BIOSPHERE RESERVE LOCATION MAP  
NETHERLANDS**

**Biosphere Reserve:** Waddensea Area

**Administrative Unit:** Multiple units under governmental and private ownership.

**Administering Entity:** Institute for Forestry and Nature Research,  
c/o The Netherlands MAB Committee

**Location:** 52°52'-53°33'N, 04°45'-07°13'E

**Area (hectares):** 260,000

**Elevation Range:** 0 - 7m

**Biome:** Temperate broad-leaf forests  
(includes costal/marine component)

**Biogeographical Province:** Atlantic

**Year Designated as Biosphere Reserve:** 1986

**Administrative Officer**

**Contact:**

**Address:** Institute for Forestry and  
Nature Research,  
c/o The Netherlands MAB Committee  
P.O. Box 167  
1790 AD Den Burg  
Texel  
Netherlands

**Telephone:** [31] (2220) + 69700  
**FAX:** [31] (2220) + 19235

**Principal Monitoring and Research Themes:**

Coastal wetlands and dune systems

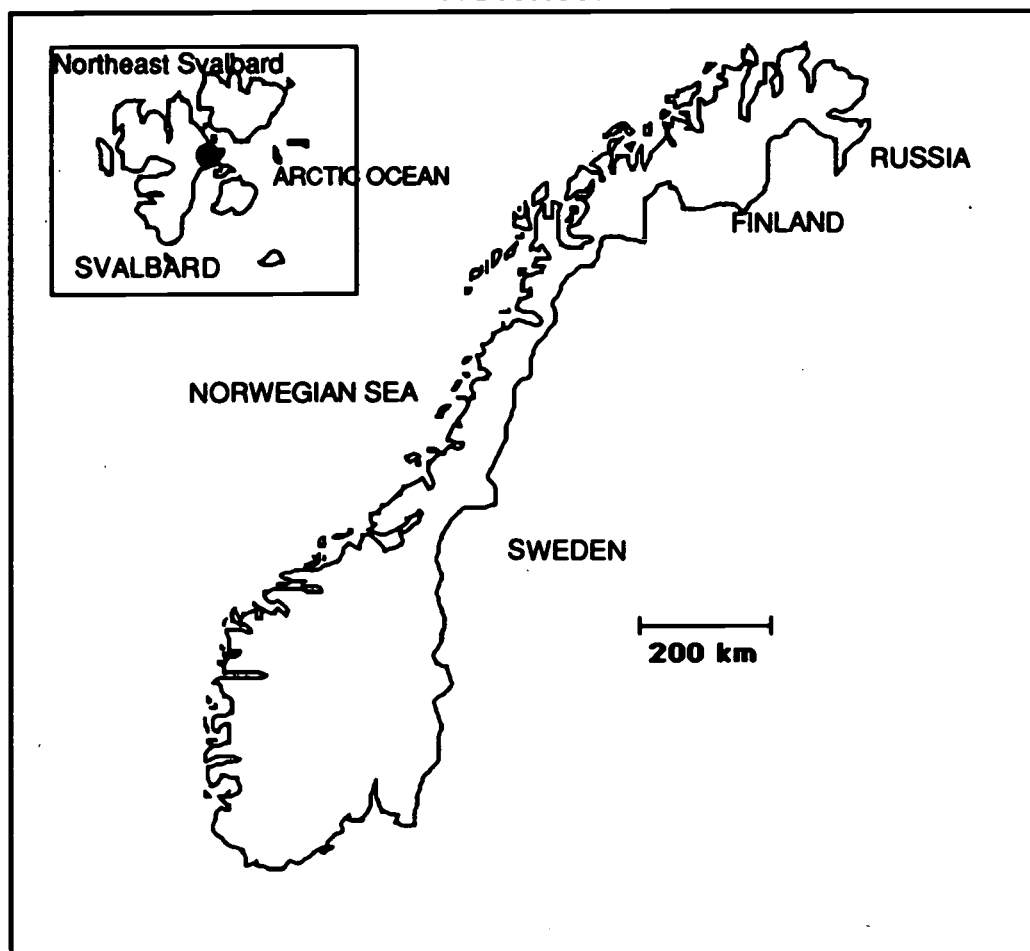
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Ragnhild Sandoy, MAB National Coordinator

**Address:** University of Tromsø  
N-9037 Tromsø  
Norway

**Telephone:** [47] (83) + 45528

**FAX:** [47] (83) + 76672

**BIOSPHERE RESERVE LOCATION MAP  
NORWAY**

**Biosphere Reserve:** Northeast Svalbard

**Administrative Unit:** Northeast Svalbard Nature Reserve

**Administering Entity:** Ministry of the Environment

**Location:** 78°40'-80°50'N, 16°35'E

**Area (hectares):** 1,555,000

**Elevation Range:** 0 - 835m

**Biome:** Tundra  
(includes coastal/marine component)

**Biogeographical Province:** Arctic Desert

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Paal Prestrud

**Address:** Section for Polar Affairs  
Department of International Environmental  
Cooperation  
Ministry of the Environment  
Post Box 8013 - DEP  
0030 Oslo.  
Norway

**Telephone:** [47] (22) + 345996

**Principal Monitoring and Research Themes:**

Air transported pollution  
Climate change  
Radioactive emissions monitoring

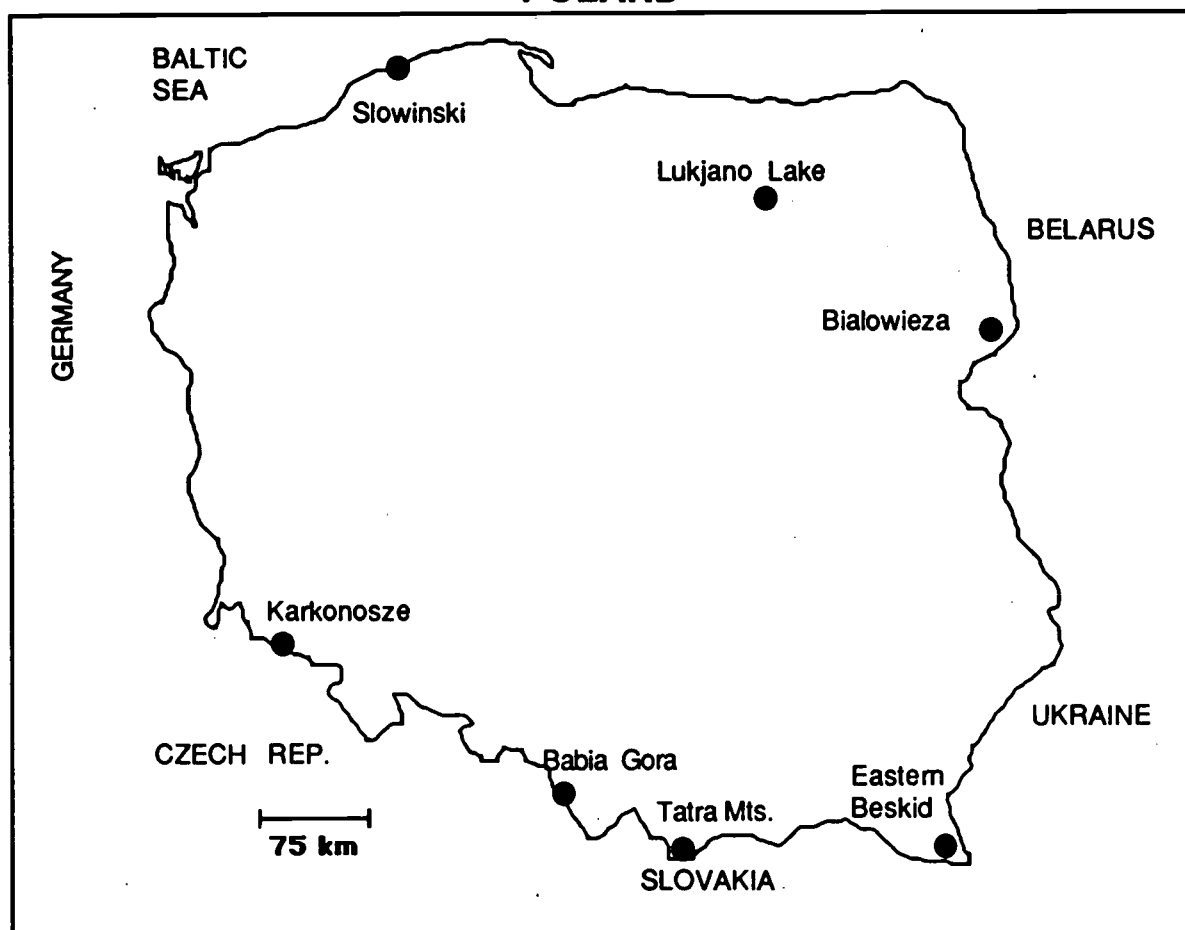
## NATIONAL CONTACT FOR BIOSPHERE RESERVES

**Name:** Prof. Dr. Alicja Breymeyer

**Address:** Man and Environment Committee  
Polish Academy of Science  
Palace of Culture and Science  
00-901 Warsaw  
Poland

**FAX:** [48] (2) + 226-7267

**TELEX:** IGPAN 817835

BIOSPHERE RESERVE LOCATION MAP  
POLAND

**Biosphere Reserve:** Babia Gora

**Administrative Unit:** Babia Gora National Park

**Administering Entity:** Ministry of Environmental Protection,  
Natural Resources and Forestry

**Location:** 49°34'N, 19°32'E

**Area (hectares):** 1,741

**Elevation Range:** 850 - 1,725m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Jecek Wizimirski

**Address:** Babia Gora National Park  
Siedziba Dyrekeji i muzeum  
34-223 Zawoja  
Poland

**Telephone:** [48] + Zawoja 110

**Principal Monitoring and Research Themes:**

Multidisciplinary ecological monitoring in  
complex mountain ecosystems  
Effects of pollutants  
Tourism and carrying capacity studies

**Biosphere Reserve:** Bialowieza

**Administrative Unit:** Bialowieza National Park

**Administering Entity:** Ministry of Environmental Protection,  
Natural Resources, and Forestry

**Location:** 52°42'36" - 52 48'06" N,  
23°48'15" - 23 55'41" E

**Area (hectares):** 5,348

**Elevation Range:** 147 - 172m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Boreonemoral

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Czeslaw Okolow, Acting Director

**Address:** Bialowieza National Park  
17-230 Bialowieza  
Poland

**Telephone:** [48] + 12306, [48] + 12360

**FAX:** [48] + 12323

**Telex** 28-26-36 BPN pl

**Principal Monitoring and Research Themes:**

Climate	Groundwaters and surface water levels
Air pollution	Physiology and ecology of bison
Plant demography	Phenology of plants and animals
Breeding bird census	Structure/function of lowland forest
on permanent study plots	including: succession, energy flow, effects
Ecology and dynamics of	of human modifications
parasites in natural and	Entomology/biological control of pest
modified ecosystems	insect
Forest management research/silviculture	



**Biosphere Reserve:** Eastern Beskid  
(see also East Carpathians, Slovakia)

**Administrative Unit:** Bieszczady National Park, Cisna-Wetlina  
and San Valley Landscape Parks

**Administering Entity:** Ministry of Environmental Protection,  
Natural Resources and Forestry

**Location:** 49°00'-22'N, 22°06'-53'E

**Area (hectares):** 108,924

**Elevation Range:** 420 - 1,346m

**Biome:** Temperate broad-leaf forests and  
woodlands, and mixed mountain systems  
with complex zonation

**Biogeographic Province:** Middle European Forest and Central  
European Highlands

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Wojomir Wojciechowski

**Address:** Bieszczady National Park Administration  
38-714 Ustrzyki Gorne  
Poland

**Telephone:** [48] Lutowiska 50

**Principal Monitoring and Research Themes:**

Dynamics of forests and alpine ecosystems

**Biosphere Reserve:** Karkonosze  
(see also Krkonose, Czech Republic)

**Administrative Unit:** Karkonosze National Park

**Administering Entity:** Karkonosze National Park Administration

**Location:** 50°44'-50'N, 15°27'-50'E

**Area (hectares):** 5,564

**Elevation Range:** 400 - 1,602m

**Biome:** Mixed mountain systems with  
complex zonation

**Biogeographic Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Ryszard Mochola

**Address:** Karkonoski Park Narodowy  
Chalubinskiego 23  
58-570 Jelenia Gora  
Poland

**Telephone:** [48] (75) + 53726

**FAX:** [48] (75) + 53348

**Principal Monitoring and Research Themes:**

Air pollution  
Forests  
Climate

**Biosphere Reserve:** Lukajno Lake  
**Administrative Unit:** Lukajno Lake Reserve  
**Administering Entity:** Urząd Wojewódzki-Suwałki  
**Location:** 53°49'N, 21°38'E  
**Area (hectares):** 710  
**Elevation Range:** 115m (mean lake level)  
**Biome:** Temperate broad-leaf forests  
**Biogeographical Province:** Boreonemoral  
**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Włodzimierz Jankowski,  
Deputy Director, Environmental  
Conservation Department

**Address:** Urząd Wojewódzki  
16-400 Suwałki  
Noniewiczza 10  
Poland

**Telephone:** [48] + 62220  
**FAX:** [48] + 2166  
**E-Mail:** 16-400 Suwałki

**Principal Monitoring and Research Themes:**

Influence of agricultural runoff/non-point  
source pollution  
Ecology/population dynamics of mute swan  
(Cygnus olor)

**Biosphere Reserve:** Slowinski  
**Administrative Unit:** Slowinski National Park  
**Administering Entity:** Slowinski National Park Management  
**Location:** 54°39'-54°43'N, 17°03'-17°31'E  
**Area (hectares):** 18,247  
**Elevation Range:** 0 - 55m  
**Biome:** Temperate broad-leaf forests  
**Biogeographical Province:** Middle European Forest  
**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Kazimierz Rabski,  
Director  
**Address:** Slowinski National Park  
ul. Bohaterow Warszawy 1  
76-214 Smoldzino  
Poland  
**Telephone:** [48] (59) + 116-204,  
[48] (59) + 116-339,  
[48] (59) + 116-368

**Principal Monitoring and Research Themes:**

Ecology of coastal dune ecosystems  
Paleobotanical and geobotanical studies  
Climate studies  
Fauna studies

**Biosphere Reserve:** Tatra Mountains  
(see also Tatry, Slovakia)

**Administrative Unit:** Tatra National Park

**Administering Entity:** Ministry of Nature Protection, Natural  
Resources and Forestry

**Location:** 49°15'N, 19°56'E

**Area (hectares):** 20,396

**Elevation Range:** 750 - 2,499m

**Biome:** Temperate broad-leaf forests or woodlands

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** W. Gasienica Byrcyn

**Address:** Tatrzański Park Narodowy  
Chatubinskiego 42A  
34-500 Zakopane  
Poland

**Telephone:** [48] (165) + 63203

**FAX:** [48] (165) + 63579

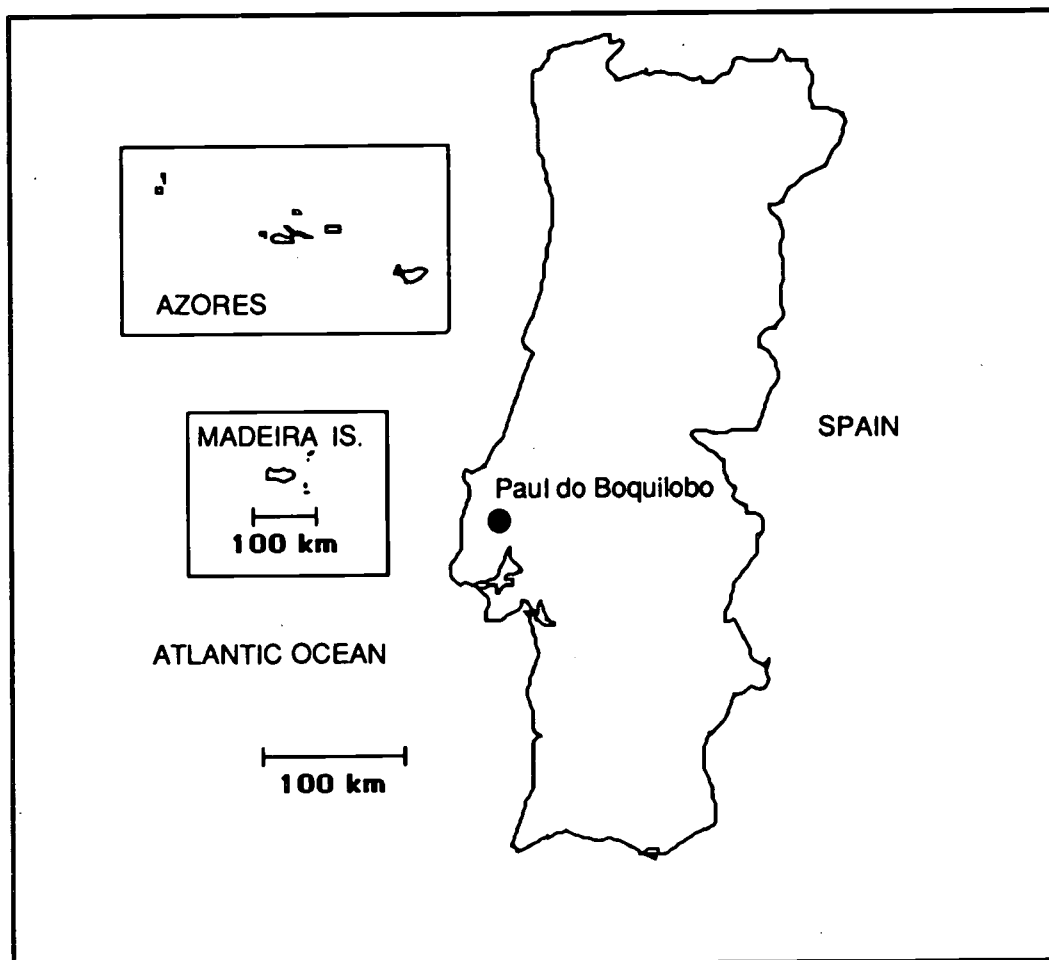
**Principal Monitoring and Research Themes:**

Air quality monitoring  
Ecological research on flora, fauna,  
geology, and geomorphology

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Prof. Fernando Henriques, Chairman  
MAB National Committee

**Address:** Rua do Seculo, 51-4  
1200 Lisboa  
Portugal

**BIOSPHERE RESERVE LOCATION MAP****PORTUGAL**

**Biosphere Reserve:** Paul do Boquilobo  
**Administrative Unit:** Paul do Boquilobo Nature Reserve  
**Administering Entity:** Private ownership  
**Location:** 39°24'N, 9°28'W  
**Area (hectares):** 395  
**Elevation Range:** 14 - 16m  
**Biome:** Evergreen sclerophyllous woodlands  
**Biogeographical Province:** Mediterranean Sclerophyll  
**Year Designated as Biosphere Reserve:** 1981

**Administrative Officer**

**Site Manager**

**Contact:**

**Address:**

**Telephone:** [351] +

**Principal Monitoring and Research Themes:**

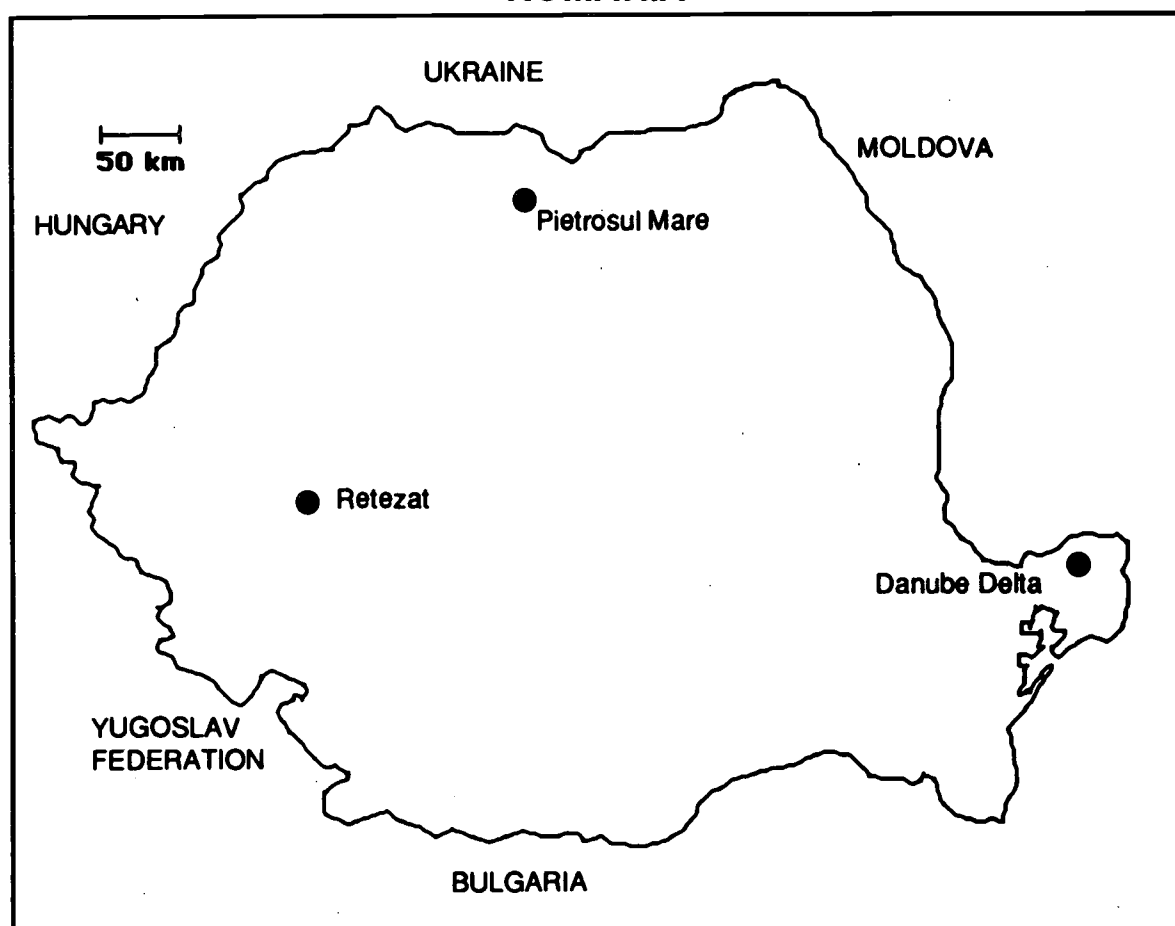
Effects of agricultural uses  
Studies of pollutants on lake/marsh system  
Ecosystem restoration

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Angheluta Vadineanu

**Address:** Ministry of Environment  
International and Public Relations Division  
12 Bd. Libertati, Tronson, 5  
Bucharest  
Romania

**Telephone:** [40] (0) + 813-488  
**FAX:** [40] (0) + 120-403

**BIOSPHERE RESERVE LOCATION MAP  
ROMANIA**



**Biosphere Reserve:** Danube Delta

**Administrative Unit:** Multiple use area; includes former Rosca-Letea Reserve

**Administering Entity:** Danube Delta Biosphere Reserve

**Location:** 44°20'40"-45°27'N, 28°10'40"-29°42'45"E

**Area (hectares):** 591,200

**Elevation Range:** 0.2 - 47m

**Biome:** Temperate grasslands  
(includes coastal/marine component)

**Biogeographical Province:** Pontian Steppe

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Gomoiu Marian-Traian

**Address:** Administratia Rezervatiei Biosferei Delta  
Dunarii  
Str. Pacii, nr.20  
Tulcea Ro-8800, Cas.Post.13  
Romania

**Telephone:** [40] (915) + 15277

**FAX:** [40] (915) + 24547

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Pietrosul Mare

**Administrative Unit:** Pietrosul Mare Nature Reserve

**Administering Entity:** Bistrita-Environmental Survey and Protection Agency

**Location:** 47°40'N, 25°00'E

**Area (hectares):** 3,068

**Elevation Range:** 900 - 2,303m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Middle European Forests

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Carlarig Liviu

**Address:** Bistrita  
Str. Avram Iancu, nr.9  
Jud. Bistrita Nasaud  
Romania

**Telephone:** [40] (990) + 16628

**Principal Monitoring and Research Themes:**

Geological studies  
Flora and fauna surveys  
Peat bog pollen analysis  
Ecology of beach forests and alpine meadows

**Biosphere Reserve:** Retezat

**Administrative Unit:** Retezat National Park

**Administering Entity:** Deva - Environmental Survey and  
Protection Agency

**Location:** 45°25'N, 22°45'E

**Area (hectares):** 20,000

**Elevation Range:** 890 - 2,509m

**Biome:** Temperate broad-leaf forests

**Biogeographical Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Batca Teodat

**Address:** Deva  
Str. Aurel Vlaicu, nr.25  
Jud. Hunedoara  
Romania

**Telephone:** [40] (956) + 15445

**Principal Monitoring and Research Themes:**

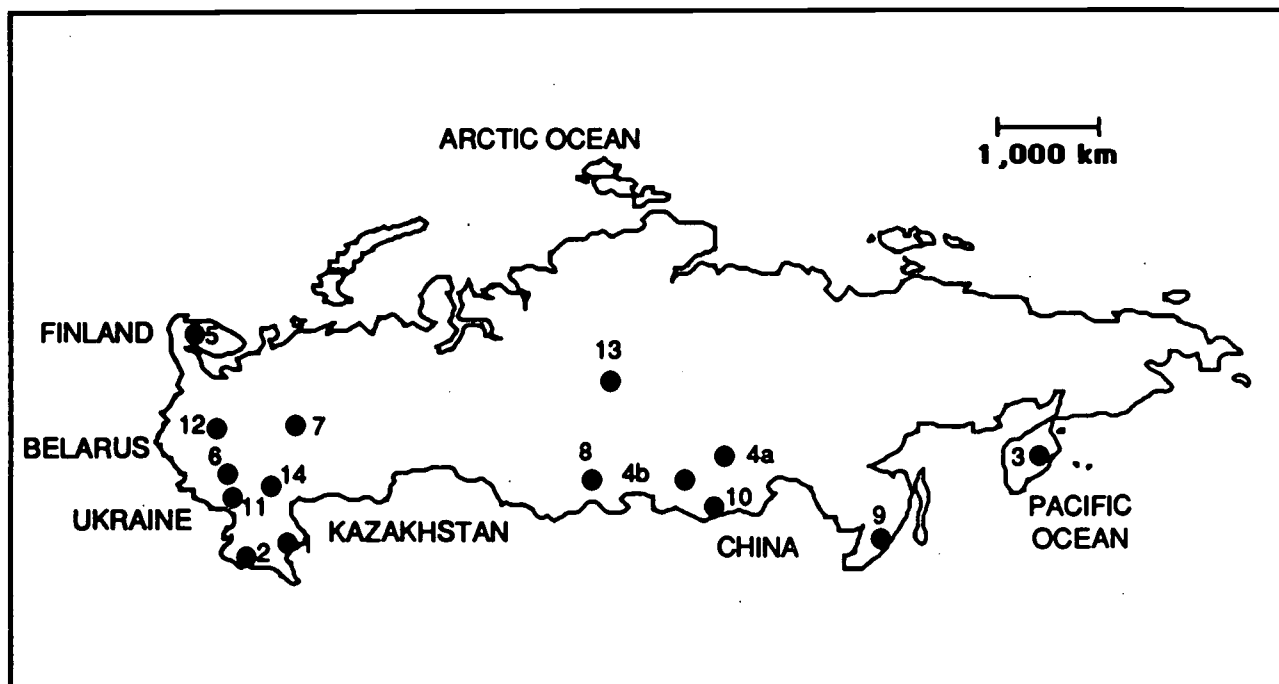
Palynology  
Ecology of glacial lakes, forests, mountains

## NATIONAL CONTACT FOR BIOSPHERE RESERVES

**Name:** Dr. Valeri M. Neronov  
Executive Director, Russian MAB National Committee

**Address:** Russian MAB Secretariat  
13, Fersman St.,  
117312 Moscow  
Russian Federation

**Telephone:** [7] (095) + 124-6000  
**FAX:** [7] (095) + 129-1354  
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BIOSPHERE RESERVE LOCATION MAP  
RUSSIAN FEDERATION

- |                                       |                       |                              |
|---------------------------------------|-----------------------|------------------------------|
| 1. Astrakhanskiy                      | 5. Laplandskiy        | 10. Sokhondinskiy            |
| 2. Kavkazskiy                         | 6. Oka River Valley   | 11. Tsentral'no Chernozemny. |
| 3. Kronotskiy                         | 7. Pechoro-Ilychskiy  | 12. Tsentral'no Lesnoy       |
| 4a. Lake Baikal Region - Barguzinskiy | 8. Sayano-Shushenskiy | 13. Tzentralsibirskiy        |
| 4b. Lake Baikal Region - Baikal'skiy  | 9. Sikhote-Alinskiy   | 14. Voronezhskiy             |

**Biosphere Reserve:** Astrakhanskiy

**Administrative Unit:** Astrakhanskiy Zapovednik (three sections)

**Administering Entity:** Government of Russian Federation

**Location:** 45°31'N, 47°44'E to 46°17'N, 48°57'E

**Area (hectares):** 63,400

**Elevation Range:** 28m

**Biome:** Cold-winter deserts and semi-deserts  
(includes coastal/marine component)

**Biogeographic Province:** Turanian

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Konechnyi A.G.  
Director of Zapovednik

**Address:** Quay of the Tsarev River, 119  
Astrakhan  
414021 Russian Federation

**Telephone:** [7] (851) + 003-6929

**Principal Monitoring and Research Themes:**

Faunal inventory and monitoring  
Hydrology and climatology monitoring  
Effects of hydrological projects on Volga  
River Delta

**Biosphere Reserve:** Kavkazskiy

**Administrative Unit:** Kavkazskiy Zapovednik (two sections)

**Administering Entity:** Government of Russian Federation

**Location:** 43°46'N, 40°21'E

**Area (hectares):** 266,700

**Elevation Range:** 0 - 3,360m

**Biome:** Mixed mountain systems with complex zonation  
(includes coastal/marine component)

**Biogeographic Province:** Caucaso-Iranian Highlands

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

**Contact:** Timuhin N.T.

**Address:** Kavkazskiy Zapovednik  
Krasnodarskiy Kray  
Sochi A-341  
Karl Marx St. 8  
354341 Russian Federation

**Telephone:** [7] (862) + 244-5136  
[7] (862) + 244-5073

**Principal Monitoring and Research Themes:**

Flora and fauna inventory  
Ecology of rare species  
Dynamics of northwest Caucasus Mountains  
Effects of fire and logging in Caucasus Mountains

**Biosphere Reserve:** Kronotskiy

**Administrative Unit:** Kronotskiy Zapovednik

**Administering Entity:** Government of Russian Federation

**Location:** 54°09'-55°07'N, 159°38'-162°07'E

**Area (hectares):** 1,099,000

**Elevation Range:** 0 - 3,528m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Kamchatkan

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Alekseev S.A.  
Director of Zapovednik

**Address:** Kronotskiy Zapovednik  
Kamchatskaya Region  
Elisovo, Ryaleikova Str. 8  
689010 Russian Federation

**Telephone:** [7] (095) + Order via operator 8-813,  
61663 or 62847

**Principal Monitoring and Research Themes:**

Biological inventories  
Ecology of volcanic ranges of the Middle  
Kamchatkan Peninsula, with emphasis on relict  
fir and larch forests  
Ecology of ungulates and large predators

**Biosphere Reserve:** Lake Baikal Region

**Administrative Units:** Baikal'skiy Zapovednik and Barguzinskiy Zapovednik and polygon

**Administering Entity:** Government of Russian Federation

**Location:** 51°50'N, 105°05'E (Baikal'skiy),  
54°20'N, 109°45'E (Barguzinskiy)

**Area (hectares):** 554,900

**Elevation Range:** 400 - 3,000m

**Biomes:** Temperate needle-leaf forests and lake systems  
(includes coastal/marine component)

**Biogeographic Provinces:** East Siberian Taiga, Lake Baikal

**Year Designated as Biosphere Reserve:** 1986

**Administrative Officers**

<b>Contact:</b>	Prokudin A.D. Director, Baikal'skiy Zapovednik	Jankus G. A. Director, Barguzinskiy Zapovednik
<b>Address:</b>	Kabanskiy District Buryat, Tankhoi 671120 Russian Federation	Severo-Baikalskiy District Buryat, Davshe 671715 Russian Federation

**Telephone:**

**Principal Monitoring and Research Themes:**

Climate monitoring  
Vegetation, and animal populations and their harvesting  
Population dynamics and management of sable  
Ecosystem changes



**Biosphere Reserve:** Laplandskiy  
**Administrative Unit:** Laplandskiy Zapovednik  
**Administering Entity:** Government of Russian Federation  
**Location:** 67°10'-68°05'N, 31°45'-32°45'E  
**Area (hectares):** 268,400  
**Elevation Range:** 470 - 1,115m  
**Biome:** Temperate needle-leaf forests  
**Biogeographic Province:** West Eurasian Taiga  
**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Zolotuhin V.P.  
Director of Zapovednik  
**Address:** Laplandskiy Zapovednik  
Manchegorsk  
Zelenyi per. 8  
Murmansk Region  
184280 Russian Federation  
**Telephone:** [7] (095) + Order via operator 8-815, 22267

**Principal Monitoring and Research Themes:**

Ecology of the Kola Peninsula  
Ecology of reindeer and fur-bearing mammals  
Ecology of fish  
Ecological effects of human disturbance  
Ecological role of fire

**Biosphere Reserve:** Oka River Valley

**Administrative Unit:** Okskiy Zapovednik and polygon and Prioksko-Terrasny State Reserve

**Administering Entity:** Government of Russian Federation

**Location:** 54°43'N, 40°50'E (Okskiy),  
54°53'N, 37°49'E (Prioksko-Terrasny)

**Area (hectares):** 60,600

**Elevation Range:** 80 - 200m

**Biome:** Temperate broad-leaf forest

**Biogeographic Province:** Boreonemoral

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

<b>Contact:</b>	Priklonskii S.G. Director, Okskiy Zapovednik	Litkens E.S. Director, Prioksko-Terrasny Reserve
<b>Address:</b>	Spasskiy District Ryazan Region Lakash 391072 Russian Federation	Serpuhovskoi District Moskovskaya Region Danki 142274 Russian Federation
<b>Telephone:</b>	[7] (095) Order via operator 72274	[7] (095) + 546-7363 or 296-9063

**Principal Monitoring and Research Themes:**

Inventory of birds	Climate monitoring
Hydrology	Plant and animal populations, harvesting
Ecology of selected fauna	Ecosystem dynamics of mixed forests
Rare mammals population dynamics	

**Biosphere Reserve:** Pechoro-Ilychskiy

**Administrative Unit:** Pechoro-Ilychskiy Zapovednik  
(two sections)

**Administering Entity:** Government of Russian Federation

**Location:** 61°43'-63°15'N, 56°49'-59°38'E

**Area (hectares):** 721,322

**Elevation Range:** 150 - 1,195m

**Biome:** Temperate needle-leaf forests

**Biogeographic Province:** West Eurasian Taiga

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Megalinskii K.O.  
Director of Zapovednik

**Address:** Pechoro-Ilychskiy Zapovednik  
Troitsko-Pechorskiy District  
Komi Republic  
Yaksha  
169436 Russian Federation

**Telephone:** [7] (095) Order via operator, 8-813, 95699

**Principal Monitoring and Research Themes:**

Long-term ecological monitoring  
Reproductive biology of domestic elk  
Population studies of fish, birds, and  
mammals

**Biosphere Reserve:** Sikhote-Alinskiy

**Administrative Unit:** Sikhote-Alinskiy Zapovednik

**Administering Entity:** Government of Russian Federation

**Location:** 44°46'-45°45'N, 135°48'-136°35'E

**Area (hectares):** 349,900

**Elevation Range:** 0 - 1,600m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Manchurian-Japanese Mixed Forest

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

**Contact:** Astafev A.A.  
Director of Zapovednik

**Address:** Sikhote-Alinskiy Zapovednik  
Terneyskiy District  
Primorskiy Kray  
Terney  
692150 Russian Federation

**Telephone:** [7] (095) Order via operator, 8-813, 91559

**Principal Monitoring and Research Themes:**

Flora and fauna inventories  
Ecology of rare and commercially  
important species  
Ecosystem studies: (vegetation distribution;  
succession, productivity)

**Biosphere Reserve:** Sokhondinskiy  
**Administrative Unit:** Sokhondinskiy Zapovednik  
**Administering Entity:** Government of Russian Federation  
**Location:** 49°29'-50°0'N, 110°33'-111°22'E  
**Area (hectares):** 211,000  
**Elevation Range:** 700 - 2,508m  
**Biome:** Temperate grasslands  
**Biogeographic Province:** Mongolian-Manchurian Steppe  
**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Yashnov V.I.  
Director of Zapovednik  
  
**Address:** Sokhondinskiy Zapovednik  
Chitinskaya Region  
Kyra, Gorky Str. 48  
674250 Russian Federation  
  
**Telephone:** [7] (095) Order via operator, 8-813, 91424

**Principal Monitoring and Research Themes:**

Long-term ecological monitoring  
Inventory of mosses, lichens, birds and  
mammals

**Biosphere Reserve:** Tsentral'no Chernozemny

**Administrative Unit:** Tsentral'no-Chernozemny Zapovednik  
(five sections)

**Administering Entity:** Government of Russian Federation

**Location:** 51°00'N, 36°40'E

**Area (hectares):** 4,795

**Elevation Range:** 230 - 263m

**Biome:** Temperate broad-leaf forests, temperate  
grasslands

**Biogeographic Province:** Middle European Forest/Pontian Steppe

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

**Contact:** Maleshin N.A.  
Director of Zapovednik

**Address:** Tsentral'no-Chernozemny Zapovednik  
Kursk /  
Zapovednoe  
307028 Russian Federation

**Telephone:** [7] (095) + 807100 - 71016

**Principal Monitoring and Research Themes:**

Forest-steppe ecosystems: soil formation,  
moisture and temperature,  
vegetation dynamics  
Long-term monitoring of birds  
Ecotonal studies

**Biosphere Reserve:** Tsentral'no-Lesnoy  
**Administrative Unit:** Tsentral'no-Lesnoy Zapovednik  
**Administering Entity:** Government of Russian Federation  
**Location:** 56°30'N, 32°52'E  
**Area (hectares):** 21,348  
**Elevation Range:** 200 - 289m  
**Biome:** Temperate broad-leaf forests  
**Biogeographic Province:** Boreonemoral  
**Year Designated as Biosphere Reserve:** 1985

**Administrative Officer**

**Contact:** Jeltuhin A.S.  
Director of Zapovednik  
**Address:** Tsentral'no-Lesnoy Zapovednik  
Nelidovskiy District  
Tverskaya Region  
172513 Russian Federation  
**Telephone:** [7] (095) + 808266-22220

**Principal Monitoring and Research Themes:**

Meteorological observations  
Annual censuses of animal populations  
Ecological research of primary and  
secondary forests  
Inventory and ecological monitoring  
of spruce ecosystems  
Wildlife population dynamics  
Human modification of adjacent landscapes

**Biosphere Reserve:** Tzentral'nosibirskiy  
**Administrative Unit:** Tzentralsibirskiy Zapovednik and polygon  
**Administering Entity:** Government of Russian Federation  
**Location:** 60°55'-63°15'N, 84°15'-92°30'E  
**Area (hectares):** 5,000,000  
**Elevation Range:** 80 - 500m  
**Biome:** Temperate needle-leaf forests  
**Biogeographic Province:** West Eurasian Taiga, East Siberian Taiga  
**Year Designated as Biosphere Reserve:** 1986

**Administrative Officer**

**Contact:** Rassolov A.G.  
Director of Zapovednik  
**Address:** Tsentral'nosibirskiy Zapovednik  
Turukhanskiy District  
Krasnoyarskiy Kray  
Bor  
663196 Russian Federation  
**Telephone:** [7](095) Order via operator, 8-813, 7625

**Principal Monitoring and Research Themes:**

Inventory and ecology of soil, vegetation,  
and animal populations



**Biosphere Reserve:** Voronezhskiy  
**Administrative Unit:** Voronezhskiy Zapovednik  
**Administering Entity:** Government of Russian Federation  
**Location:** 52°0'N, 39°41'E  
**Area (hectares):** 31,100  
**Elevation Range:** 90 - 170m  
**Biome:** Temperate broad-leaf forests  
**Biogeographic Province:** Middle European Forest  
**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Semyonov V.A.  
Director of Zapovednik  
**Address:** Voronezhskiy Zapovednik  
Voronezh  
Grafskaya Station  
394047 Russian Federation  
**Telephone:** [7] (095) + 80732-269542

**Principal Monitoring and Research Themes:**

Soil fauna: plant growth/ development  
relationships  
Avian and mammalian parasitology  
Insect ecology  
Mammalian reproductive biology  
Forest succession studies  
Ecology of bryophytes

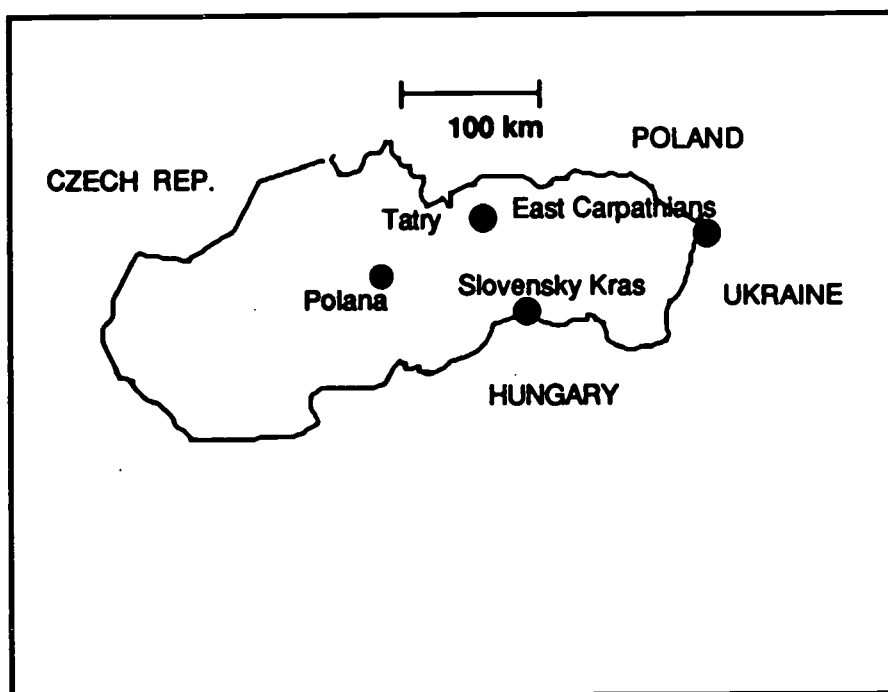
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Juraj Holcik

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Slovak Academy of Sciences  
Manesovo 2  
851 01 Bratislava  
Slovak Republic

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**FAX:** [42] (7) + 840-363

**BIOSPHERE RESERVE LOCATION MAP  
SLOVAKIA**

**Biosphere Reserve:** East Carpathians  
(see also Eastern Beskid, Poland)

**Administrative Unit:** East Carpathian Protected Landscape Area

**Administering Entity:** Administration of the East Carpathian  
Protected Landscape Area  
Ministry of Environment

**Location:** 48°56'N - 49°11'N, 22°09'-34'E

**Area (hectares):** 40,601

**Elevation Range:** 210 - 1208m

**Biome:** Temperate broad-leaf forests and  
woodlands

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Jan Terray

**Address:** Lipova 19  
066 01 Humenne  
Slovak Republic

**Telephone:** [42] (933) + 3632

**Principal Monitoring and Research Themes:**

Biodiversity in forests	Vegetation monitoring - forest ecosystems,
Aquatic ecosystems	meadow ecosystems
Biotopes mapping	Inventory of flora and fauna
Agricultural research	Wildlife population dynamics
	Traditional cultivars of fruit trees

**Biosphere Reserve:** Polana

**Administrative Unit:** Polana Protected Landscape Area/  
Biosphere Reserve

**Administering Entity:** Polana Administration  
(Ministry of Environment)

**Location:** 48°39'N, 19°29'E

**Area (hectares):** 20,079

**Elevation Range:** 460 - 1458m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Contact:** Dusan Slavik

**Address:** J.M. Hurbana 20  
960-01 Zvolen  
Slovak Republic

**Telephone:** [42] (855) + 23657

**Principal Monitoring and Research Themes:**

Inventory of flora and fauna	Vegetation monitoring
Agricultural research	Wildlife population dynamics
Appropriate rural technology	Research on rare species
Aquatic ecosystems	Geomorphology, pedology
Biogeochemical cycling	Water pollutants
Climatological monitoring	Atmospheric pollutants
Ecosystems (succession, modeling, comparative studies)	Ecosystem restoration

**Biosphere Reserve:** Slovensky Kras

**Administrative Unit:** Slovak Karst Protected Landscape Area/  
Biosphere Reserve

**Administrative Entity:** Slovak Karst Administration  
(Ministry of Environment)

**Location:** 48°35'N, 20°40'E

**Area (hectares):** 36,165

**Elevation Range:** 200 - 925m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Mikulas Rozloznik

**Address:** Brzotin 188  
049 51  
Slovak Republic

**Telephone:** [42] (942) + 82198

**Principal Monitoring and Research Themes:**

Inventory of flora  
Vegetation mapping  
Abiotic, biotic, and human environments  
Geology, geomorphology, and speleology  
Monitoring of flora and fauna  
Research on rare species  
Atmospheric pollutants  
Hydrography regime change

**Biosphere Reserve:** Tatry  
(see also Tatra Mountains, Poland)

**Administrative Unit:** Tatra National Park

**Administering Entity:** Administration of the Tatra National  
Park (Ministry of Agriculture)

**Location:** 49°10'N, 19°57'E

**Area (hectares):** 105,660

**Elevation Range:** ? - 2655m

**Biome:** Temperate broad-leaf forests or woodlands

**Biogeographic Province:** Middle European Forest

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Ivan Voloscuk

**Address:** Tatra National Park Administration  
(TANAP)  
Tatranska Lomnica  
059 60  
Slovak Republic

**Telephone:** [42] (969) + 967-9518

**FAX:** [42] (969) + 967-959

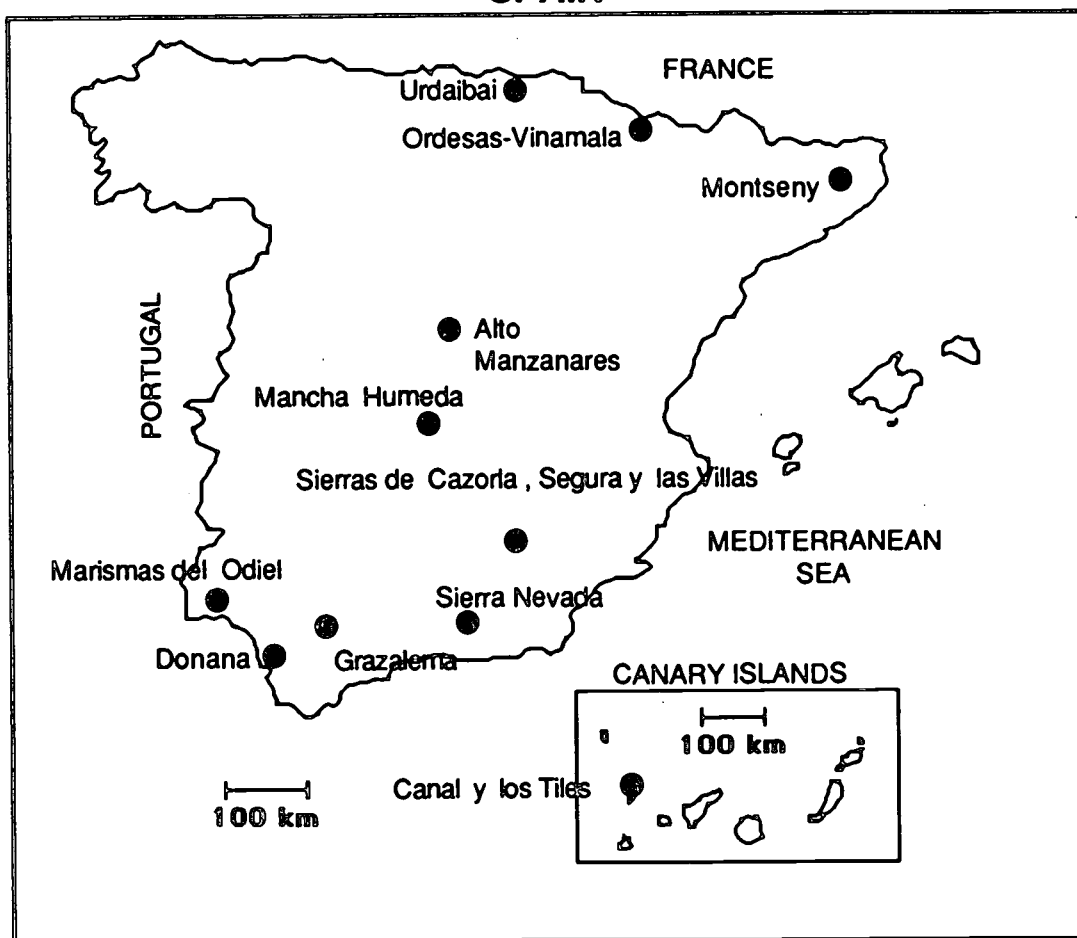
**Principal Monitoring and Research Themes:**

## NATIONAL CONTACT FOR BIOSPHERE RESERVES

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Deputacion de Barcelona  
Conde de Urgell, 187  
08036 Barcelona  
Spain

Telephone: [34] (3) + 302-0778  
FAX: [34] (3) + 402-2494

BIOSPHERE RESERVE LOCATION MAP  
SPAIN

**Biosphere Reserve:** Alto Manzanares

**Administrative Unit:** Parque Regional de la Cuenca Alta del Manzanares

**Administering Entity:** Agencia de Medio Ambiente - Comunidad de Madrid

**Location:** 40°30'-49'N, 03°33'-04°00'W

**Area (hectares):** 46,323

**Elevation Range:** 615 - 2,383m

**Biome:** Mixed mountain and highland systems with complex zonation

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:** Jose Manuel Nicolas  
Director - Conservador  
Parque Regional de la Cuenca Alta del Manzanares

**Address:** Agencia de Medio Ambiente de la Comunidad de Madrid  
Princesa 3  
28003 Madrid  
Spain

**Telephone:** [34] (1) + 580-3900

**Principal Monitoring and Research Themes:**

Ecological cartography      Agroecosystems  
Ecosystems/wetlands  
Landscape conservation and recreation



**Biosphere Reserve:** El Canal y los Tiles  
**Administrative Unit:**  
**Administering Entity:** Vice-Consejeria del Medio Ambiente  
**Location:** 28°40'N, 17°40'W  
**Area (hectares):** 511  
**Elevation Range:** 250 - 1,400m  
**Biome:** Mixed island systems  
**Biogeographical Province:** Macaronesian Islands  
**Year Designated as Biosphere Reserve:** 1983

**Administrative Officer**

**Contact:** Jefe Unidad Insular  
**Address:** Avenida Anaga, 35-7.  
38001 Santa Cruz de Tenerife  
Islas Canarias  
Spain  
**Telephone:** [34] (22) + 291-732  
**FAX:** [34] (22) + 291-622

**Principal Monitoring and Research Themes:**

Canary Islands/relict laurisilva ecosystems

**Biosphere Reserve:** Donana

**Administrative Unit:** Donana National Park

**Administering Entity:** Instituto para la Conservacion de la Naturaleza (government)

**Location:** 37°00'N, 06°30'W

**Area (hectares):** 50,720

**Elevation Range:** 0 - 32m

**Biome:** Evergreen sclerophyllous woodlands  
(includes coastal/marine component)

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1981

**Administrative Officer**

**Contact:**

**Address:**

**Telephone:** [34] (55) +

**FAX:** [34] (55) +

**Principal Monitoring and Research Themes:**

Endangered species	Biodiversity
Ecological interaction	Climate
Population dynamics	Fires
Hydrology	Socioanthropology
Water quality	

**Biosphere Reserve:** Grazalema

**Administrative Unit:** Parque Natural Sierra de Grazelema

**Administering Entity:** Agencia de Medio Ambiente de la Junta de Andalucía

**Location:** 36°15'-36°54'N, 05°20'-05°32'W

**Area (hectares):** 32,210

**Elevation Range:** 250 - 1,654m

**Biome:** Mixed mountain and highland systems with complex zonation

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:** Juan Carlos Neva

**Address:** Avenida Diputacion s/n  
El Bosque  
11670 Cadiz  
Spain

**Telephone:** [34] (56) + 716-063  
[34] (56) + 716-236

**FAX:** [34] (56) + 716-339

**Principal Monitoring and Research Themes:**

Survey of vascular plants  
Vegetation mapping  
Structure/ function of fir, hardwood,  
maquis communities  
Biological evolution

**Biosphere Reserve:** La Mancha Humeda

**Administrative Units:** Multiple units. The biosphere reserve includes La Mancha Humeda National Park and other protected areas

**Administering Entity:** Parque Nacional "Las Tablas de Damiel" Instituto para la Conservacion de la Naturaleza (ICONA)

**Location:** 39°16'N, 03°24'E

**Area (hectares):** 25,000

**Elevation Range:** 600 - 700m

**Biome:** Evergreen sclerophyllous woodlands

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1980

**Administrative Officer**

**Contact:**

**Address:**

**Telephone:** [34] (26) +

**FAX:** [34] (26) +

**Principal Monitoring and Research Themes:**

Meteorology  
Bird populations  
Water quality

**Biosphere Reserve:** Las Marismas del Odiel

**Administrative Unit:** Biosphere reserve

**Administering Entity:** Agencia de Medio Ambiente de la Junta de Andalucia

**Location:** At mouth of Odiel River

**Area (hectares):** 8,758

**Elevation Range:** 0 - 10m

**Biome:** Evergreen sclerophyllous woodlands (includes coastal/marine component)

**Biogeographical Province:** Mediterranean sclerophyll

**Year Designated as Biosphere Reserve:** 1983

**Administrative Officer**

**Contact:** Juan Carlos Rubio Garcia

**Address:** Avenida de Sanlucar de Barrameda, 3-20  
21001 Huelva  
Spain

**Telephone:** [34] (55) + 210-321

**FAX:** [34] (55) + 210-322

**Principal Monitoring and Research Themes:**

Marshland ecosystems  
Ornithology  
Archeology

**Biosphere Reserve:** Montseny

**Administrative Unit:** Parque Natural del Montseny

**Administering Entity:** Servei de Parques Naturals, Diputacio de Barcelona

**Location:** 41°47'N, 06°03'E

**Area (hectares):** 17,372

**Elevation Range:** 270 - 1,707m

**Biome:** Mixed mountain and highland systems with complex zonation

**Biogeographical Province:** Iberian highlands

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

**Contact:** Eduard Botey

**Address:** Oficina del Parc Natural del Montseny  
Fontmartina  
08470 Fogars de Montclus (Barcelona)  
Spain

**Telephone:** [34] (3) + 847-5102

**FAX:** [34] (3) + 847-5102

**Principal Monitoring and Research Themes:**

Anthropology  
Landscape structure and dynamics  
Geological structure and dynamics  
Limnology

**Biosphere Reserve:** Ordesa-Vinamala

**Administrative Unit:** Vinamala Reserve, including Ordesa National Park

**Administering Entity:** Instituto para la Conservacion de la Naturaleza (government)

**Location:** 42°30'-42°43'N, 0°07'-0°12'E

**Area (hectares):** 51,396

**Elevation Range:** 875 - 3,941m

**Biome:** Mixed mountain and highland systems with complex zonation

**Biogeographical Province:** Iberian Highlands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer**

**Contact:**

**Address:**

**Telephone:** [34] (74) +

**FAX:** [34] (74) +

**Principal Monitoring and Research Themes:**

Inventory of flora and fauna  
Vegetation management  
Wildlife management  
Ecological effects of public use

**Biosphere Reserve:** Las Sierras de Cazorla, Segura y Las Villas

**Administrative Unit:** Las Sierras de Cazorla y Segura Resource and Hunting Reserve

**Administering Entity:** Agencia de Medio Ambiente de la Junta de Andalucía

**Location:** East Jaen Province, Andalucía

**Area (hectares):** 190,000

**Elevation Range:** 600 - 2,100m

**Biome:** Mixed mountain and highland systems with mixed zonation

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1983

**Administrative Officer**

**Contact:** Emilio Gonzalez, Director-Conservador  
P.N. Sierras de Cazorla, Segura y Las Villas

**Address:** Avenida de Andalucía, 79 pral.  
23071 Jaen  
Spain

**Telephone:** [34] (53) + 223-150  
**FAX:** [34] (53) + 251-039

**Principal Monitoring and Research Themes:**

Ecological plant-animal interactions



**Biosphere Reserve:** Sierra Nevada

**Administrative Unit:** Reserva Nacional de Caza de Sierra Nevada

**Administering Entity:** Agencia de Medio Ambiente de la Junta de Andalucía

**Location:** 36°56'-37°14'N, 2°45'-3°32'W

**Area (hectares):** 190,000

**Elevation Range:** 400 - 3,482m

**Biome:** Mixed mountain and highland systems with complex zonation

**Biogeographical Province:** Mediterranean Sclerophyll

**Year Designated as Biosphere Reserve:** 1986

**Administrative Officer**

**Contact:** Juan Rodriguez de Velasco y Vega

**Address:** Gran Via de Colon, 48-3.  
18010 Granada  
Spain

**Telephone:** [34] (58) + 290-062

**FAX:** [34] (58) + 277-600

**Principal Monitoring and Research Themes:**

Monitoring of *Capsa pyrenaica hispanica* population, diseases  
Protection and reproduction monitoring of endangered high mountain flora species  
Ski station effects on rivers

**Biosphere Reserve:** Urdaibai

**Administrative Unit:** Biosphere reserve containing multiple  
ownerships

**Administering Entity:** Departamento de Urbanismo, Vivienda y  
Medio Ambiente, Vice-consejeria de  
Medio Ambiente

**Location:** 43°20'N, 2°41'W

**Area (hectares):** 22,500

**Elevation Range:** 0 - 804m

**Biome:** Evergreen sclerophyllous woodlands

**Biogeographical Province:** Iberian Highlands

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Anton Uranburu Albizuri

**Address:** Calle Samaniego, 2  
01008 Vitoria-Gastiez  
Spain

**Telephone:** [34] (45) + 135-209  
[34] (45) + 189-567

**FAX:** [34] (45) + 135-095

**Principal Monitoring and Research Themes:**

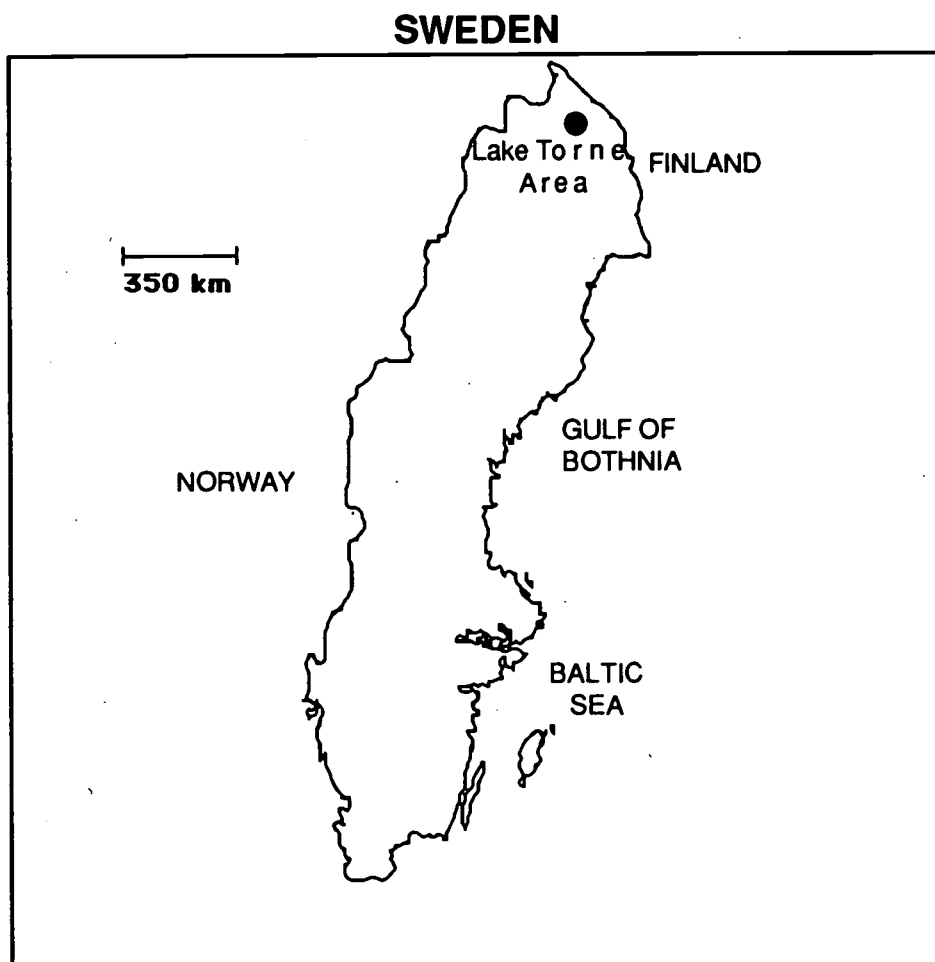
Environmental education  
Industrial wastes  
Heavy metals pollutants  
Biological research

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Uno Svedin  
Head of Division, Executive Secretary  
Swedish MAB Committee

**Address:** Swedish Council for Planning and Coordination of  
Research (FRN)  
P.O. Box 6710  
S-113 85 Stockholm  
Sweden

**Telephone:** [46] (8) + 610-0600  
**FAX:** [46] (8) + 610-0633

**BIOSPHERE RESERVE LOCATION MAP**

**Biosphere Reserve:** Lake Torne Area

**Administering Entity:** Swedish Environmental Protection Board  
and Royal Swedish Academy of Sciences

**Location:** 68°25'N, 19°00'E

**Area (hectares):** 96,500

**Elevation Range:** 340 - 1,610m

**Biome:** Tundra

**Biogeographical Province:** Subarctic Birchwoods  
(Forest Tundra and mountain tundra)

**Year Designated as Biosphere Reserve:** 1986

**Administrative Officer****Site Manager**

**Contact:** Jan From

Mats Sonesson

**Address:** Swedish Environmental  
Protection Board  
Mountain Unit  
Asgatan 20  
S-960 40 Jokkmokk  
Sweden

Royal Swedish Academy  
of Sciences  
Abisko Research Station  
S-980 24 Abisko  
Sweden

**Telephone:** [46] (971) + 12330

[46] (980) + 40039

**FAX:**

[46] (980) + 40171

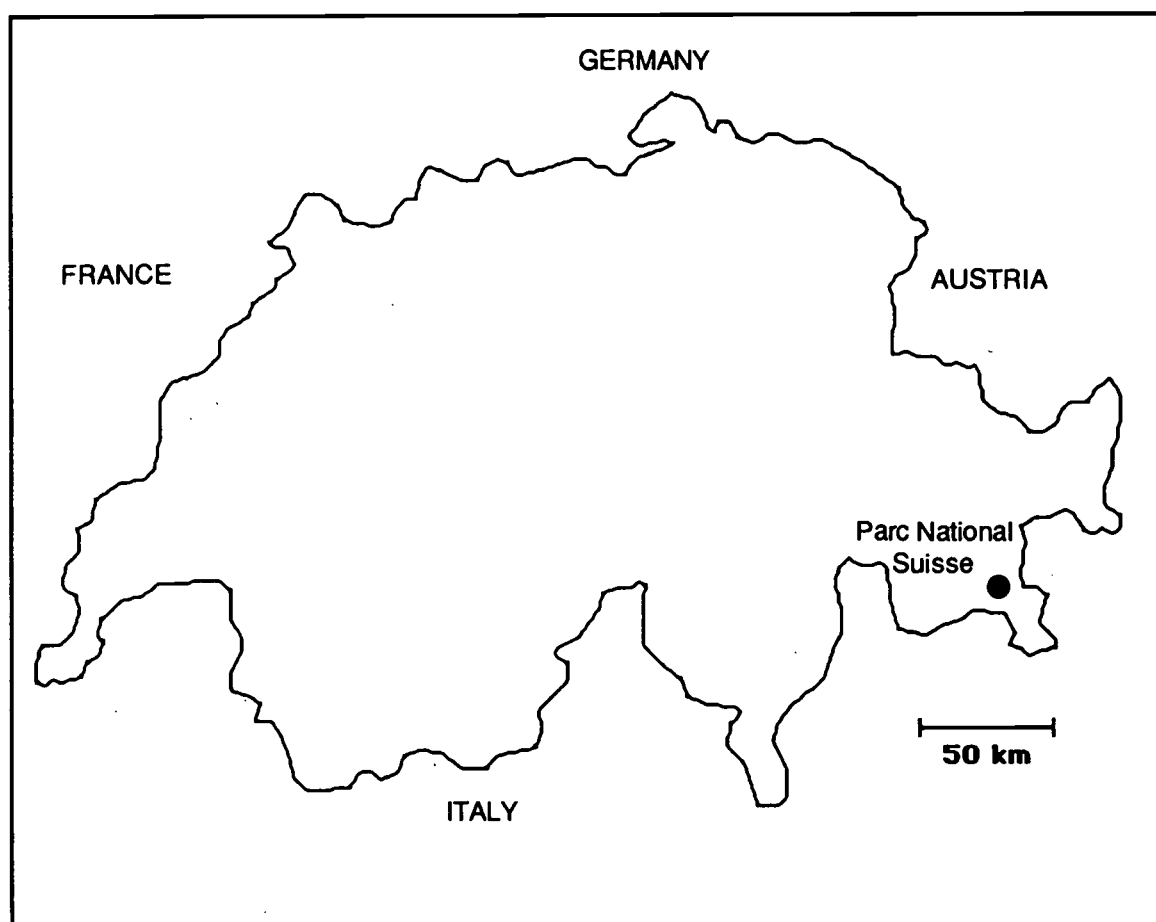
**Principal Monitoring and Research Themes:**

Meteorological observations  
Ground water monitoring  
Atmospheric deposition  
Geophysical monitoring  
Comparative ecological research  
Comparative geomorphological research

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Dr. Jurg Zihler  
Swiss National Committee for MAB

**Address:** Bundesamt fur Umwelt, Wald und Landschaft  
CH-3003 Bern  
Switzerland

**BIOSPHERE RESERVE LOCATION MAP****SWITZERLAND**

**Biosphere Reserve:** Suisse

**Administrative Unit:** Parc national Suisse

**Administering Entity:** Federal Office of Environment, Forests and  
Landscape, Main Division Conservation  
Nature and Landscape

**Location:** 46°35'-46°45'N, 10°00'-10°20'E

**Area (hectares):** 16,870

**Elevation Range:** 1,500 - 3,174m

**Biome:** Mixed mountain systems with complex  
zonation

**Biogeographical Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Klaus Rubin  
Director, Swiss National Park

**Address:** National Park House  
7530 Zermatt (GR)  
Switzerland

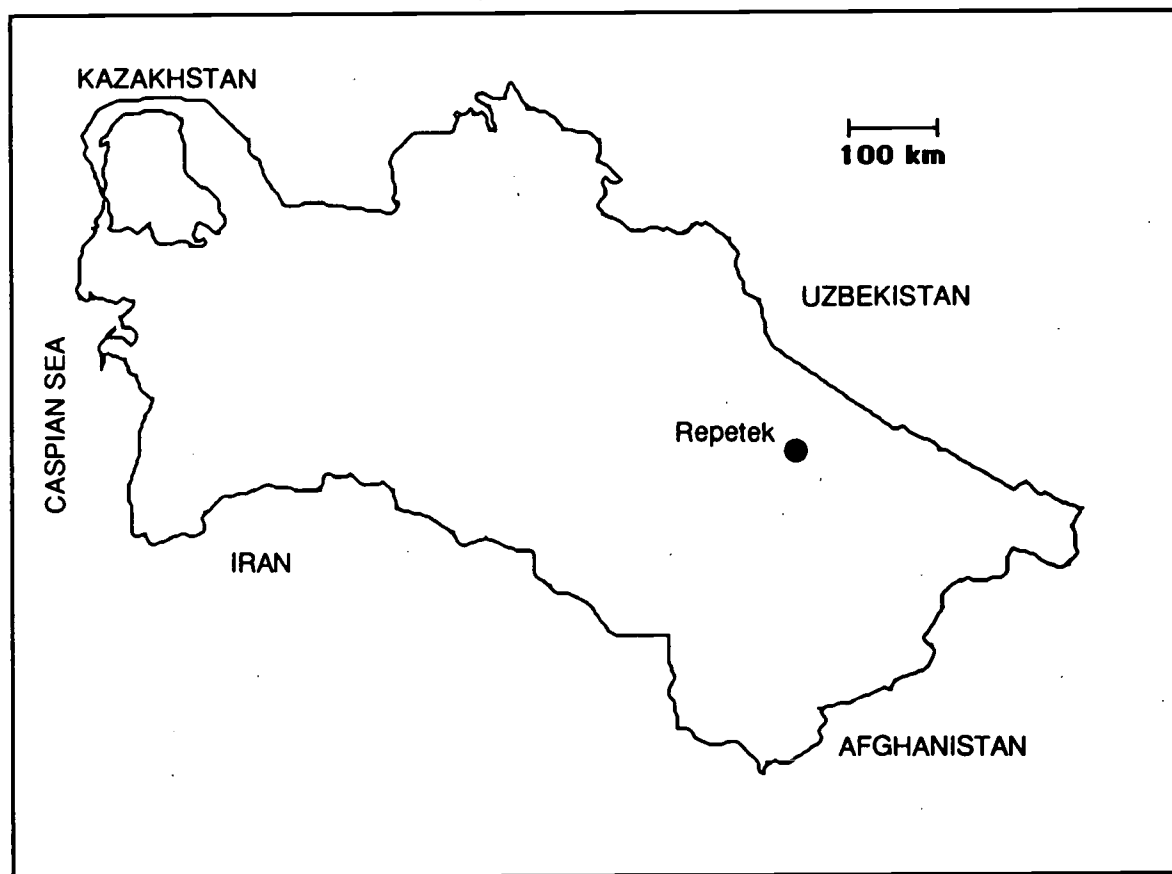
**Telephone:** [41] (82) + 813-78  
**FAX:** [41] (31) + 619-981  
**E-Mail:** RP Lebeau 31 618064

**Principal Monitoring and Research Themes:**

Ecology of forest and alpine systems

**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Babaev, A.G.  
**Address:** 15 Golgol St.  
744000 Ashgabat  
Turkmenistan  
**Telephone:** [7] (3632) + 253-716  
**FAX:** [7] (3632) + 253-716

**BIOSPHERE RESERVE LOCATION MAP  
TURKMENISTAN**

**Biosphere Reserve:** Repetek

**Administrative Unit:** Repetek Zapovednik

**Administering Entity:** The Desert Institute of the Academy of Science of Turkmenistan

**Location:** 38°16'N, 63°13'E

**Area (hectares):** 34,600

**Elevation Range:** 180 - 220m

**Biome:** Warm-moderate desert

**Biogeographic Province:** Turanian

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:**

**Address:** Repetek Sand-Desert Station  
Chardzhou Region, Repetek  
746000 Turkmenistan

**Telephone:** [7] (37822) + 24470  
**FAX:** [7] (3632) + 253-716

**Principal Monitoring and Research Themes:**

Forest management research  
Plant and animal genetics  
Use of plant resources  
Dynamics of sand-desert ecosystems:  
shifting sand, underground water, soil  
moisture, phenology, productivity,  
succession, faunal composition, and  
distribution



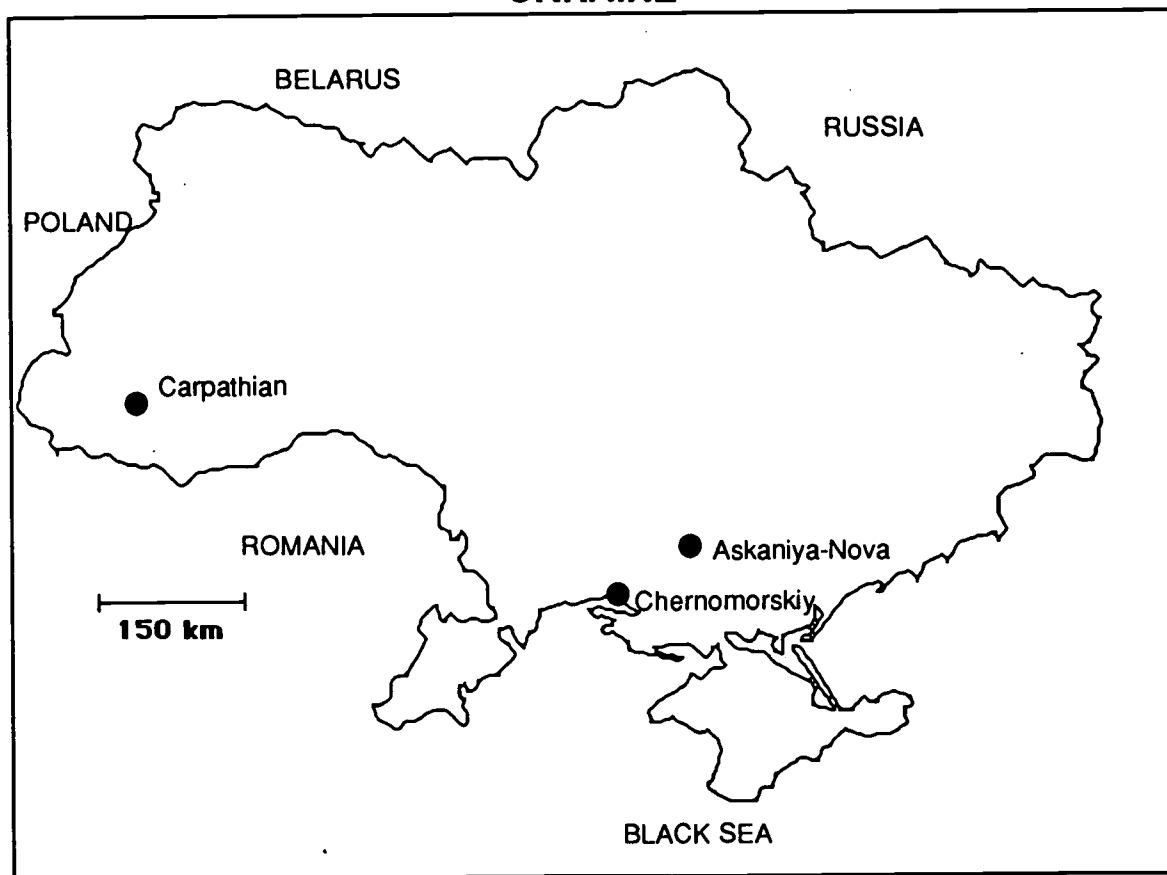
**NATIONAL CONTACT FOR BIOSPHERE RESERVES**

**Name:** Valery P. Kukhar

**Address:** Ukrainian National MAB Committee  
54 Vladimirska St.  
Kiev 30 252601  
Ukraine

**Telephone:** [7] (44) + 221-6769, [7] (44) + 225-0134

**FAX:** [7] (44) + 224-3243

**BIOSPHERE RESERVE LOCATION MAP  
UKRAINE**

**Biosphere Reserve:** Askaniya-Nova

**Administrative Unit:** Biosphere reserve includes Askaniya-Nova Zapovednik and surrounding multiple use area

**Administering Entity:** State government

**Location:** 46°28'N, 33°55'E

**Area (hectares):** 33,307

**Elevation Range:** 8 - 30m

**Biome:** Temperate grasslands

**Biogeographical Province:** Pontian Steppe

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Hawrylenko Victor Semenowytch  
Director, Askaniya-Nova Zapovednik

**Address:** Chaplynsky district  
Kherson region  
Ukraine 326332

**Telephone:** [7] (05538) + 61147

**Principal Monitoring and Research Themes:**

Ecology of grazed steppe, effect of human activities  
Wildlife population dynamics

**Biosphere Reserve:** Carpathian

**Administrative Unit:** Carpathian State Reserve, Republican Reservation "Stuzhitsa"

**Administering Entity:** State government

**Location:**

**Area (hectares):** 38,930

**Elevation Range:** 200 - 2,061m

**Biome:** Mixed mountain and highland systems with complex zonation

**Biogeographical Province:** Central European Highlands

**Year Designated as Biosphere Reserve:** 1992

**Administrative Officer**

**Contact:**

**Address:** Carpathian State Biosphere Reserve  
Krasnoye Plesso, 77  
Rakhov 295800  
Ukraine

**Telephone:** [7] (03132) + 22659

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Chernomorskiy  
**Administrative Unit:** Chernomorskiy Zapovednik  
**Administering Entity:** State government  
**Location:** 46°12'N, 32°00'E  
**Area (hectares):** 87,348  
**Elevation Range:** 0 - 100m  
**Biome:** Temperate grasslands  
(includes coastal/marine component)  
**Biogeographical Province:** Pontian Steppe  
**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer**

**Contact:** Mayatsky Georgi Borysowytych  
Director  
**Address:** Lermontov St.1  
Gola Prystan  
Kherson region  
Ukraine 326240  
**Telephone:** [7] (05539) + 2675

**Principal Monitoring and Research Themes:**

Study of sandy steppes, woodlands, fresh  
and brackish waters and  
steppe-sea ecotone  
Monitoring of breeding and  
migratory birds

## NATIONAL CONTACT FOR BIOSPHERE RESERVES

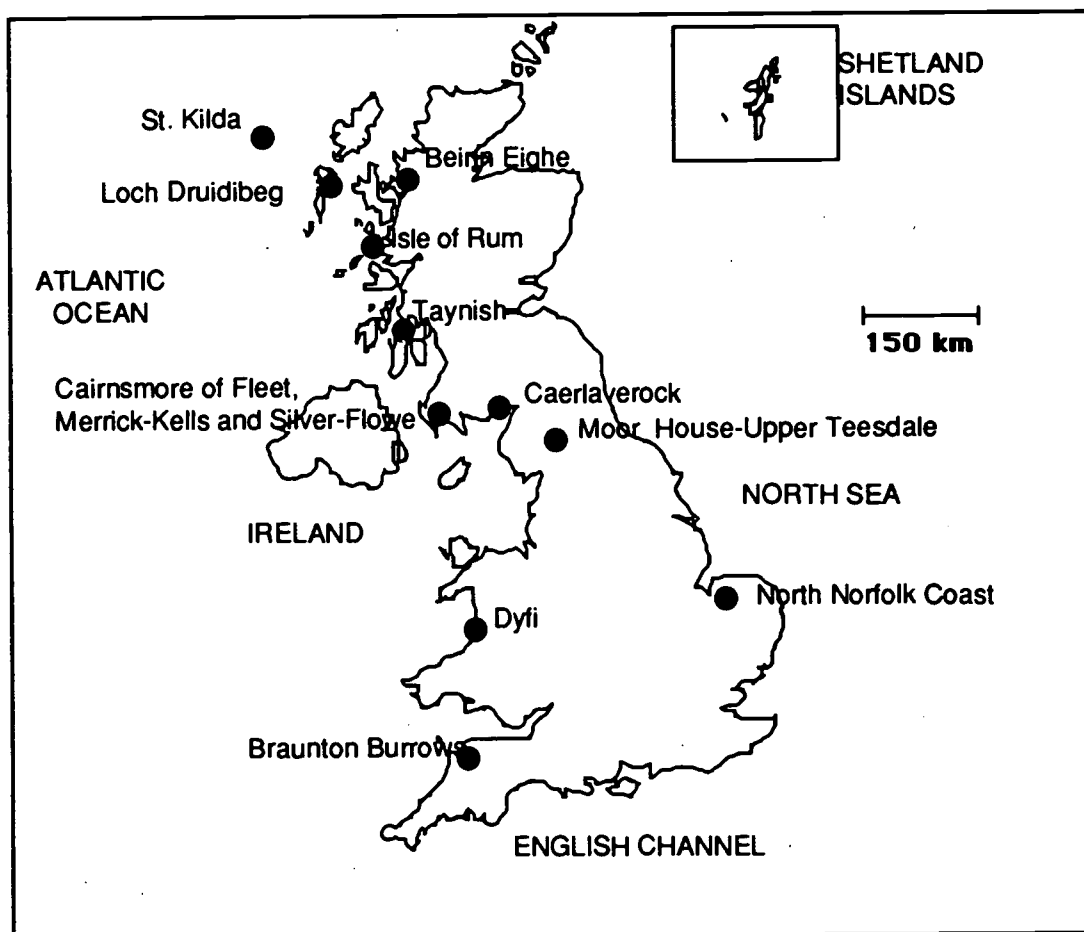
**Name:** Prof. Michael G. Morris  
Secretary, MAB National Committee

**Address:** United Kingdom MAB National Committee  
Institute of Terrestrial Ecology  
Furzebrook Research Station  
Wareham, Dorset BH20 5AS  
United Kingdom

**Telephone:** [44] (929) + 551-518  
**FAX:** [44] (929) + 551-087

## BIOSPHERE RESERVE LOCATION MAP

## UNITED KINGDOM



**Biosphere Reserve:** Beinn Eighe

**Administrative Unit:** Beinn Eighe National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 57°30'-57°39'N, 5°18'-5°30'W

**Area (hectares):** 4,800

**Elevation Range:** 0 - 1,053m

**Biome:** Mixed mountain systems with complex zonation  
(includes coastal/marine component)

**Biogeographic Province:** Scottish Highlands :

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** P.J. Tilbrook

T. Clifford

**Address:** Scottish Natural Heritage  
North-west Region  
Fraser Darling House  
9 Culduthel Road  
Inverness IV2 4AG  
Scotland  
United Kingdom

Ialtag  
Anancaun Field Station  
Kinlochewe, Ross-shire  
Scotland  
United Kingdom

**Telephone:** [44] (463) + 239-431

[44] (44584) + 244

**FAX:** [44] (463) + 710-713

**Principal Monitoring and Research Themes:**

Ecosystem restoration of lowland woodlands  
Ungulate ecology and management (deer)  
Research on montane ecosystems

**Biosphere Reserve:** Braunton Burrows

**Administrative Unit:** Braunton Burrows National Nature Reserve

**Administering Entity:** English Nature (South-west Region)

**Location:** 51°06'N, 04°12'W

**Area (hectares):** 596

**Elevation Range:** 0 - 30m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** M. Hudson

John Breeds

**Address:** English Nature  
South-west Region  
Roughmoor, Bishop's Hull  
Taunton, Somerset TA1 5AA  
England  
United Kingdom

Broadeford Farm,  
Heddon Mill  
Braunton, North Devon  
EX33 2NQ  
England  
United Kingdom

**Telephone:** [44] (823) + 283-211

[44] (271) + 812-552

**FAX:** [44] (823) + 272-97

**Principal Monitoring and Research Themes:**

Biological inventory  
Ecosystem restoration (dune systems)  
Coastal geomorphology  
Effects of natural and human influences  
on biota

**Biosphere Reserve:** Caerlaverock

**Administrative Unit:** Caerlaverock National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 54°52'N, 3°30'W

**Area (hectares):** 5,501

**Elevation Range:** 0 - 10m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** Christopher H.C. Fox

Marion Hughes

**Address:** Scottish Natural Heritage  
South-west Region  
Caspian House  
2 mariner Court  
Clydebank Business Park  
Clydebank, G81 2NR  
Scotland  
United Kingdom

106 High Street  
Dalbaccic  
Kirkcudbrightshire  
DG5 4HB  
Scotland  
United Kingdom

**Telephone:** [44] (41) + 951-4488

[44] (556) + 610-086

**FAX:** [44] (41) + 951-4510

[44] (556) + 611-924

**Principal Monitoring and Research Themes:**

Ecosystem dynamics of tidal marshes  
Wildlife management research  
(barnacle geese)  
Faunal populations  
(emphasis on birds and herpetofauna)



**Biosphere Reserve:** Cairnsmore of Fleet, Merrick-Kells and Silver-Flowe

**Administrative Unit:** Cairnsmore of Fleet National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 54°58'N, 4°17'W

**Area (hectares):** 1,922

**Elevation Range:** 200 - 710m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Site Manager**

**Contact:** Christopher H.C. Fox

Marion Hughes

**Address:** Scottish Natural Heritage  
South-west Region  
Caspian House  
2 Mariner Court  
Clydebank Business Park  
Clydebank, G81 2NR  
Scotland  
United Kingdom

106 High Street  
Dalbeattie  
Kirkcudbrightshire  
DG5 4HB  
Scotland  
United Kingdom

**Telephone** [44] (41) + 951-4488

[44] (556) + 610-086

**FAX:** [44] (41) + 951-4510

[44] (556) + 611-924

**Principal Monitoring and Research Themes:**

Floristic and faunal studies  
Studies of land use history

**Biosphere Reserve:** Claish Moss

**Administrative Unit:** Claish Moss National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 56°00'N, 05°45'W

**Area (hectares):** 480

**Elevation Range:** 0 - 20m

**Biome:** Mixed mountain systems with complex zonation  
(includes coastal/marine component)

**Biogeographic Province:** Scottish Highlands

**Year Designated as Biosphere Reserve:** 1977

	<u>Administrative Officer</u>	<u>Site Manager</u>
<b>Contact:</b>	P.J. Tilbrook	Stewart Angus Manager, Western Isles
<b>Address:</b>	Scottish Natural Heritage North-west Region Fraser Darling House 9 Culduthel Road Inverness IV2 4AG Scotland United Kingdom	17 Francis Street Stornoway Isle of Lewis PA87 2NB Scotland United Kingdom
<b>Telephone:</b>	[44] (463) + 239-431 [44] (463) + 710-713	[44] (0851) + 705-258 [44] (0851) + 704-900

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Dyfi

**Administrative Unit:** Dyfi National Nature Reserve

**Administering Entity:** Countryside Council for Wales

**Location:** 52°32'N, 4°00'W

**Area (hectares):** 1,598

**Elevation Range:** 0 - 15m

**Biome:** Temperate broad-leaf forest  
(includes coastal/marine component)

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Site Manager**

**Contact:** Chris Fuller

Mike Daly

**Address:** Countryside Council for Wales:  
Aberystwyth Office  
Plas Gogerddan  
Aberystwyth, Dyfed SY23 3EE  
Wales  
United Kingdom

Warden's Office  
Tal y Bont  
Aberystwyth,  
Dyfed SY24 5EQ  
Wales  
United Kingdom

**Telephone:** [44] (970) + 828-551

[44] (970) + 86485

**FAX:** [44] (970) + 828-314

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Isle of Rum

**Administrative Unit:** Isle of Rum National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 57°00'N, 06°30'W

**Area (hectares):** 10,560

**Elevation Range:** 0 - 812m

**Biome:** Mixed mountain systems with complex zonation  
(includes coastal/marine component)

**Biogeographic Province:** Scottish Highlands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** P.J. Tilbrook

Martin Curry

**Address:** Scottish Natural Heritage  
North-west Region  
Fraser Darling House  
9 Culduthel Road  
Inverness, IV2 4AG  
Scotland  
United Kingdom

White House  
Isle of Rum  
Scotland  
United Kingdom

**Telephone:** [44] (463) + 239-431

[44] (687) + 2026

**FAX:** [44] (463) + 710-713

**Principal Monitoring and Research Themes:**

Monitoring of flora and fauna  
Geological studies

**Biosphere Reserve:** Loch Druidibeg

**Administrative Unit:** Loch Druidibeg National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 57°20'N, 7°15'W

**Area (hectares):** 1,658

**Elevation Range:** 0 - 30m

**Biome:** Mixed mountain systems with complex zonation  
(includes coastal/marine component)

**Biogeographic Province:** Scottish Highlands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** P.J. Tilbrook

Stewart Angus  
Manager, Western Isles

**Address:** Scottish Natural Heritage  
North-west Region  
Fraser Darling House  
9 Culduthel Road  
Inverness IV2 4AG  
Scotland  
United Kingdom

17 Francis Street  
Stornoway  
Isle of Lewis  
PA87 2NB  
Scotland  
United Kingdom

**Telephone:** [44] (463) + 239-431

[44] (0851) + 705-258

**FAX:** [44] (463) + 710-713

[44] (0851) + 704-900

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Moor House-Upper Teesdale

**Administrative Units:** Moor House and Upper Teesdale National Nature Reserves

**Administering Entity:** English Nature  
(North-west Region)

**Location:** 54°65'N, 2°45'W, 54°36'N, 3°12'W

**Area (hectares):** 7,399

**Elevation Range:** 305 - 850m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** William Williams

Terry Wells

**Address:** Blackwall  
Bowness-on-Windermere  
Cumbria LA23 3JR  
England  
United Kingdom

Appleby Business Center  
3 Bridge Street  
Appleby, Cumbria  
CA16 6QH  
England  
United Kingdom

**Telephone:** [44] (5394) + 45286

[44] (7683) + 52347

**FAX:** [44] (5394) + 88432

[44] (7683) + 52546

**Principal Monitoring and Research Themes:**

Structure and function of bog ecosystems  
Monitoring of biotic and  
abiotic environment  
Dynamics of plant-animal relationships  
Effects of natural and human influences  
on biota

- Biosphere Reserve:** North Norfolk Coast
- Administrative Units:** Multiple units (Scolt Head and Holkham National Nature Reserves; Blakeney Point, and Cley and Salhouse Marshes Sites of Special Scientific Interest)
- Administering Entities:** English Nature, National Trust (East Anglia Regional Agent), and Norfolk Naturalists' Trust
- Location:** 52°56'-52°57'N, 0°43'-1°00'E
- Area (hectares):** 5,497
- Elevation Range:** 0 - 20m
- Biome:** Temperate broad-leaf forests (includes coastal/marine component)
- Biogeographic Province:** British Islands
- Year Designated as Biosphere Reserve:** 1976
- Administrative Officer**
- Contact:** Senior Officer, English Nature (Norfolk)
- Address:** 60 Bracondale  
Norwich  
NR1 2BE  
England  
United Kingdom
- Telephone:** [44] (603) + 620-558
- FAX:**
- Principal Monitoring and Research Themes:**  
Ecology of salt marshes and dune systems
-

**Biosphere Reserve:** St. Kilda

**Administrative Unit:** St. Kilda National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 57°49'N, 8°34'W

**Area (hectares):** 842

**Elevation Range:** 0 - 430m

**Biome:** Mixed mountain systems with complex zonation  
(includes coastal/marine component)

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Site Manager**

**Contact:** P.J. Tilbrook

Stewart Angus  
Manager, Western Isles

**Address:** Scottish Natural Heritage  
North-west Region  
Fraser Darling House  
9 Culduthel Road  
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United Kingdom

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[44] (0851) + 704-900

**Principal Monitoring and Research Themes:**

Monitoring of flora and fauna (emphasis on sea birds)  
Population dynamics of Soay sheep



**Biosphere Reserve:** Taynish

**Administrative Unit:** Taynish National Nature Reserve

**Administering Entity:** Scottish Natural Heritage

**Location:** 56°00'N, 5°38'W

**Area (hectares):** 326

**Elevation Range:** 0 - 100m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** British Islands

**Year Designated as Biosphere Reserve:** 1977

**Administrative Officer****Site Manager**

<b>Contact:</b>	Christopher H.C. Fox	Carmen Placido
<b>Address:</b>	Scottish Natural Heritage South-west Region Caspian House 2 Mariner Court Clydebank Business Park Clydebank, G81 2NR Scotland United Kingdom	1 Kilmory Industrial Estate Kilmory Lochgilphead Argyll PA31 8RR Scotland United Kingdom
<b>Telephone:</b>	[44] (41) + 951-4488 [44] (41) + 951-4510	[44] (546) + 603-611 [44] (546) + 602-298

**Principal Monitoring and Research Themes:**

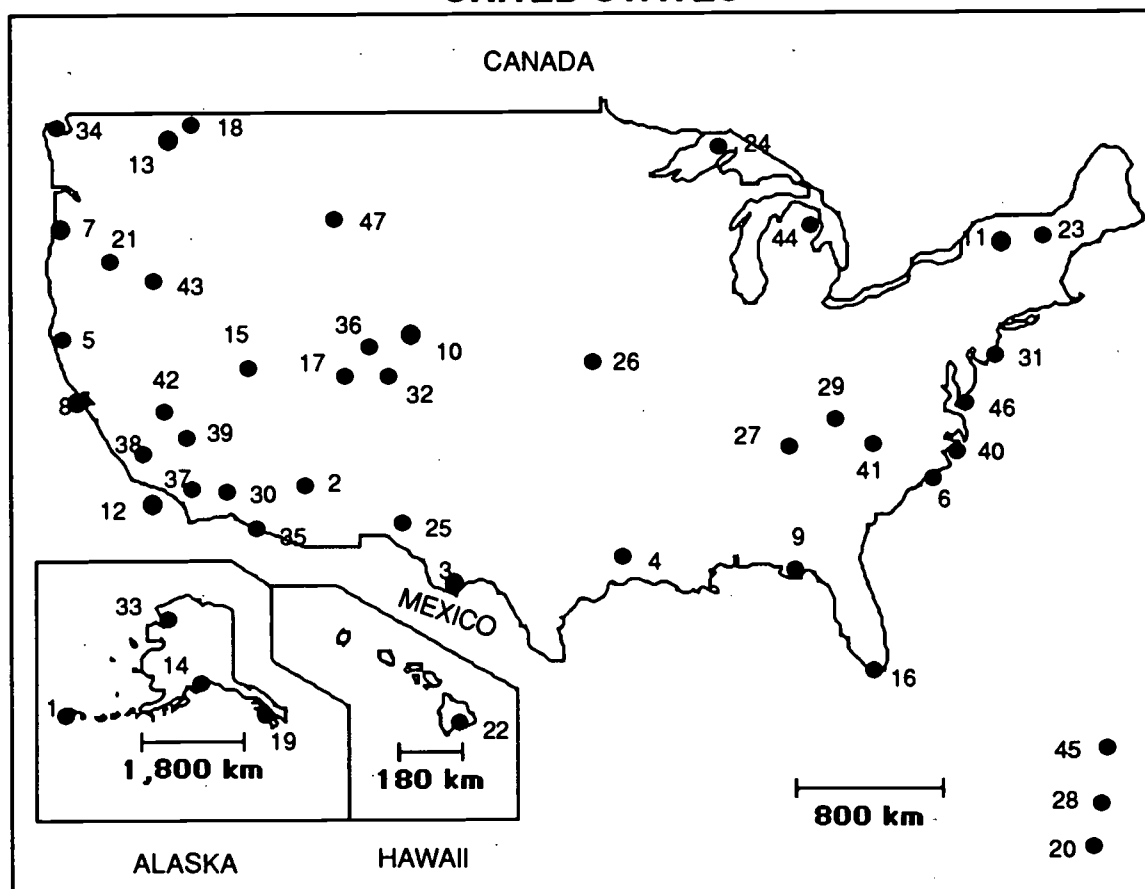
## NATIONAL CONTACT FOR BIOSPHERE RESERVES

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Executive Director, U.S. MAB Secretariat

**Address:** OES/EGC/MAB  
Room 608 SA 37  
Department of State  
Washington, D.C. 20522-3707  
U.S.A.

**Telephone:** [1] (703) + 235-2946

**FAX:** [1] (703) + 235-3002

BIOSPHERE RESERVE LOCATION MAP  
UNITED STATES

SEE NEXT PAGE FOR LIST OF NAMES OF BIOSPHERE RESERVES

- |                               |                                  |                                  |
|-------------------------------|----------------------------------|----------------------------------|
| 1. Aleutian Islands           | 17. Fraser                       |                                  |
| 2. Beaver Creek               | 18. Glacier                      | 33. Noatak                       |
| 3. Big Bend                   | 19. Glacier Bay-Admiralty Island | 34. Olympic                      |
| 4. Big Thicket                | 20. Guanica                      | 35. Organ Pipe Cactus            |
| 5. California Coast Ranges    | 21. H.J. Andrews                 | 36. Rocky Mountain               |
| 6. Carolinian-South Atlantic  | 22. Hawaiian Islands             | 37. San Dimas                    |
| 7. Cascade Head               | 23. Hubbard Brook                | 38. San Joaquin                  |
| 8. Central California Coast   | 24. Isle Royale                  | 39. Sequoia-Kings Canyon         |
| 9. Central Gulf Coastal Plain | 25. Jornada                      | 40. South Atlantic Coastal Plain |
| 10. Central Plains            | 26. Konza Prairie                | 41. Southern Appalachian         |
| 11. Champlain-Adirondack      | 27. Land Between the Lakes       | 42. Stanislaus-Tuolumne          |
| 12. Channel Islands           | 28. Luquillo                     | 43. Three Sisters                |
| 13. Coram                     | 29. Mammoth Cave Area            | 44. University of Michigan       |
| 14. Denali                    | 30. Mojave and Colorado Deserts  | 45. Virgin Islands               |
| 15. Desert                    | 31. New Jersey Pinelands         | 46. Virginia Coast               |
| 16. Everglades                | 32. Niwot Ridge                  | 47. Yellowstone                  |

**Biosphere Reserve:** Aleutian Islands

**Administrative Unit:** Alaska Maritime National Wildlife Refuge

**Administrative Entity:** U.S. Department of the Interior,  
U.S. Fish and Wildlife Service

**Location:** 54°51'-52°55'N, 163°22'-172°24'W

**Area (hectares):** 1,100,943

**Elevation Range:** 0 - 3,041m

**Biome:** Tundra  
(includes coastal/marine component)

**Biogeographic Province:** Aleutian Islands

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Daniel L. Boone

**Address:** U.S. Fish and Wildlife Service  
Aleutian Islands Unit, AMNW  
PSC 486 Box 5251  
FPO AP 96506-5251  
U.S.A.

**Telephone:** [1] (907) + 592-2406

**FAX:** [1] (907) + 592-3473

**Principal Monitoring and Research Themes:**

Marine bird populations and productivity  
Aleutian Canada goose restoration  
Eradication of introduced arctic foxes  
Winter waterfowl populations monitoring  
Marine mammals (Steller's sea lion)

**Biosphere Reserve:** Beaver Creek

**Administrative Unit:** Beaver Creek Experimental Watershed

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 34°32'N, 111°65'W

**Area (hectares):** 111,300

**Elevation Range:** 900 - 2,400m

**Biome:** Warm deserts and semideserts

**Biogeographic Province:** Sonoran

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Bruce Greco

**Address:** Beaver Creek Experimental  
Watershed  
2323 West Greenlaw Lane  
Flagstaff, Arizona 86004  
U.S.A.

**Telephone:** [1] (602) + 556-7374

**FAX:** [1] (602) + 556-7371

**E-Mail:** USFS(DG):R03F04A

**Principal Monitoring and Research Themes:**

Surface hydrology  
Climate  
Old-growth timber/forest research

**Biosphere Reserve:** **Big Bend**

**Administrative Unit:** Big Bend National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 29°30'N, 102°103'E

**Area (hectares):** 283,247

**Elevation Range:** 533 - 2,388m

**Biome:** Warm deserts and semideserts

**Biogeographic Province:** Chihuahuan

**Year Designated as a Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Superintendent

**Address:** Big Bend National Park  
Texas 79834  
U.S.A.

**Telephone:** [1] (915) + 477-2251

**FAX:** [1] (915) + 477-2247

**Principal Monitoring and Research Themes:**

Inventory of resources  
River use along Rio Grande  
Hydrological cycle  
Reptiles  
Geomorphology  
Water quality and flow  
Paleontology

**Biosphere Reserve:** Big Thicket

**Administrative Unit:** Big Thicket National Preserve

**Administering Entity:** U.S. Department of the Interior  
National Park Service

**Location:** 30°31'N, 94°19'W

**Area (hectares):** 34,217

**Elevation Range:** 0 - 8m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Austroriparian

**Year Designated as Biosphere Reserve:** 1981

**Site Manager**

**Contact:** Ronald Switzer,  
Superintendent

**Address:** Big Thicket National Preserve  
3785 Milam  
Beaumont, Texas 77701  
U.S.A.

**Telephone:** [1] (409) + 839-2691

**FAX:** [1] (409) + 839-2599

**Principal Monitoring and Research Themes:**

Fire influences on plant communities  
Tree demography, seedling mortality  
Soil nutrient limitations on tree seedling  
establishment  
Intensive monitoring and modeling of  
pollutants in airshed  
River management study

**Biosphere Reserve:** California Coast Ranges

**Administrative Unit:** Multiple Units

**Administering Entities:** California Department of Forests;  
University of California; The Nature Conservancy; U.S. Department of the Interior, Bureau of Land Management and National Park Service; U.S. Department of Agriculture, Forest Service; California Department of Parks and Recreation

**Location:** 39°45'N, 123°58'W; 41°30'N, 124°00'W;  
36°N, 121°31'W; 36°N, 121°37'W

**Area (hectares):** 62,098

**Elevation Range:** 0 - 1,572m

**Biome:** Temperate rain forests  
(includes coastal/marine component)

**Biogeographic Province:** Oregonian

**Year Designated as Biosphere Reserve:** 1983

**Administrative Officer**

**Contact:** Debra Elliott-Fisk, Director

**Address:** Natural Reserve System, University of California  
300 Lakeside Drive, 6th floor  
Oakland, California 94612-3560

**Telephone:** [1] (510) 987-0150

**FAX:** [1] (510) 763-2971

(information continued on next page)



Information continued:

**Biosphere Reserve: California Coast Ranges**

**Site Managers**

Peter Steel

John Smiley

<b>Address:</b>	Northern California Coast Range Preserve 42101 Wilderness Road Branscomb, California 95417	Landels-Hill Big Creek Reserve Coast Route Big Sur, California 93920
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**Telephone:** [1] (707) 984-6653

[1] (408) 667--2543

**Principal Monitoring and Research Themes:**

Archeology	Ethnobiology	Sedimentation
Biological surveys and collections	Exotic species	Succession
Comparative ecology	Integrated food chains	Wildlife
Downcutting response	Invertebrate biodiversity	population dynamics
Ecosystem restoration	Leaf packs	
	Redwood biogeography	

**Biosphere Reserve:** **Carolinian-South Atlantic**

**Administrative Units:** Multiple Units

**Administering Entities:** U.S. Department of the Interior, Fish and Wildlife Service, National Park Service; South Carolina Department of Wildlife and Marine Resources; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; University of South Carolina; Little St. Simons Island Foundation; Clemson University; and The Nature Conservancy

**Location:** 30°50'-35°00'N, 76°00'-81°35'W

**Area (hectares):** 157,105

**Elevation Range:** 0 - 20m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Eastern Forest

**Year Designated as Biosphere Reserve:** 1986

**Contacts:** Dennis M. Allen                      Sally Hopkins-Murphy

**Address:** Baruch Marine Laboratory      Non-Game and Heritage Trust  
                    Section  
                    University of South Carolina      South Carolina Wildlife and Marine  
                    P.O. Box 1630                      Resources Department  
                    Georgetown,                      P.O. Box 12559  
                    South Carolina 29442              Charleston, South Carolina 29412  
                    U.S.A.                                  U.S.A.

**Telephone:**[1] (803) + 546-3623                      [1] (803) + 795-6350

**FAX:**              [1] (803) + 546-1632                      [1] (803) + 762-5007

**Principal Monitoring and Research Themes:**

Wildlife population dynamics	Ecology (long-term)	Vegetation studies
Rare and endangered species	Geomorphology	Inventory/birds
Fire history and effects	Science studies	Exotic species
Recreation and tourism	Acid precipitation	Sea level changes

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**Biosphere Reserve:** Cascade Head

**Administrative Unit:** Cascade Head Experimental Forest and  
Scenic-Research Area

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 45°02'N, 123°59'W

**Area (hectares):** 7,051

**Elevation Range:** 0 - 525m

**Biome:** Temperate rain forests  
(includes coastal/marine component)

**Biogeographic Province:** Oregonian

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Sarah Greene

**Address:** Forestry Sciences Laboratory  
3200 Jefferson Way  
Corvallis, Oregon 97331  
U.S.A.

**Telephone:** [1] (503) + 750-7360

**FAX:** [1] (503) + 750-7329

**Principal Monitoring and Research Themes:**

Growth and mortality patterns of 130 year-  
old stands of Sitka spruce, western  
hemlock, and Douglas fir  
Air temperature and precipitation data (56 years)  
Monitoring of salt marsh restoration (since 1981)

**Biosphere Reserve:** Central California Coast

**Administrative Units:** Multiple Units

**Administering Entities:** U.S. Department of the Interior, U.S. Fish and Wildlife Service and National Park Service; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Audubon Canyon Ranch; Marin County; Municipal Water District; California Department of Parks and Recreation; University of California; Stanford University; and City of San Francisco

**Location:** 37°38°N, 122°W

**Area (hectares):** 857,103

**Elevation Range:** -2,300 - 730m

**Biome:** Evergreen sclerophyllous woodland (includes coastal/marine component)

**Biogeographic Province:** Californian

**Year Designated as Biosphere Reserve:** 1988

**Contact:** Sally Fairfax

**Address:** College of Natural Resources  
University of California, Berkeley  
145 Mulford Hall  
Berkeley, California 94720  
U.S.A.

**Telephone:** [1] (510) + 642-7627

**FAX:** [1] (415) + 664-1660

(Information continued on next page)

Information continued:

**Biosphere Reserve:**                      **Central California Coast**

**Contacts (continued):**

Ed Veber  
Gulf of the Farallons and  
Cordell Bank National Marine  
Sanctuaries, NOAA  
Fort Mason Building 204  
San Francisco, California 94123  
U.S.A.

Nona Chiariello  
Jasper Ridge Biological  
Preserve  
Stanford University  
Stanford, CA 94305  
U.S.A

**Telephone:**[1] (415) + 556-3509

[1] (415) + 949-5711

**FAX:**            [1] (415) + 664-1419

**Principal Monitoring and Research Themes:**

Biological survey and collections  
Ecosystem restoration  
Marine/terrestrial interactions

Rare/endangered species  
Traditional land use systems  
Wildlife population dynamics

**Biosphere Reserve:** Central Gulf Coastal Plain

**Administrative Unit:** Apalachicola National Estuarine Research Reserve

**Administering Entities:** Florida Department of Natural Resources and U.S. Department of Commerce, National Oceanographic and Atmospheric Administration

**Location:** 29°44'N, 84°58'W

**Area (hectares):** 78,414

**Elevation Range:** 0.1 - 5m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Austroriparian

**Year Designated as Biosphere Reserve:** 1983

**Site Manager**

**Contact:** Woodard W. Miley, II

**Address:** Apalachicola National Estuarine Research Reserve  
261 Seventh Street  
Apalachicola, Florida 32320  
U.S.A.

**Telephone:** [1] (904) + 653-8063

**FAX:** [1] (904) + 653-2297

**Principal Monitoring and Research Themes:**

Long-term monitoring of physical,  
chemical and biological parameters  
Threatened and endangered species  
Environmental education activities  
Management-oriented research

**Biosphere Reserve:** Central Plains

**Administrative Unit:** Central Plains Experimental Range

**Administering Entity:** U.S. Department of Agriculture,  
Agricultural Research Service

**Location:** 40°50'N, 104°45'W

**Area (hectares):** 6,210

**Elevation Range:** 1,600 - 1,690m

**Biome:** Temperate grasslands

**Biogeographic Province:** Grasslands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** Gary W. Frasier

Mary Ashby

**Address:** Agricultural Research Service  
Rangeland Resources Research Unit  
1701 Center Avenue  
Ft. Collins, Colorado 80526  
U.S.A.

Central Plains  
Experimental Range

**Telephone:** [1] (303) + 498-4230

[1] (303) + 897-2226

**FAX:** [1] (303) + 482-2909

**Principal Monitoring and Research Themes:**

Vegetation data  
Land use history  
Inventory-vascular plants  
Climate  
Rangeland management

**Biosphere Reserve:** Champlain-Adirondack

**Administrative Units:** Adirondack Park, Green Mountain National Forest, Mount Mansfield State Natural Area, Camel's Hump State Natural Area

**Administering Entities:** Adirondack Park Agency (New York State); U.S. Department of Agriculture, Forest Service; Vermont Agency of Natural Resources; New York State Department of Environmental Conservation; University of Vermont

**Location:** 43°00'-45°00'N, 73°15'-73°30'W

**Area (hectares):** 3,990,000

**Elevation Range:** 29 - 1,629m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Lake Forest

**Year Designated as Biosphere Reserve:** 1989

	<u>New York Area</u>	<u>Vermont Area</u>
<b>Contact:</b>	Edward J. Hood	Rose Paul
<b>Address:</b>	Adirondack Park Agency P.O. Box 99 Ray Brook, New York 12977 U.S.A.	Agency of Natural Resources 103 South Main Street Center Building Waterbury, Vermont 05676 U.S.A.
<b>Telephone:</b>	[1] (518) + 891-4050	[1] (802) + 244-1137
<b>FAX:</b>	[1] (518) + 891-3938	[1] (802) + 244-1102

**Principal Monitoring and Research Themes:**

Atmospheric pollutants	Geographic information systems
Water quality	Forest research/silviculture
Comparative ecology	Watershed management



**Biosphere Reserve:** Channel Islands

**Administrative Units:** Channel Islands National Marine Sanctuary  
and Channel Islands National Park

**Administrative Entities:** U.S. Department of Commerce,  
National Oceanic and Atmospheric  
Administration; and U.S. Department of  
the Interior, National Park Service

**Location:** 33°27'-34°04'N, 119°01'-120°26'W

**Area (hectares):** 479,625

**Elevation Range:** 0 - 741m

**Biome:** Evergreen sclerophyllous woodlands  
(includes coastal/marine component)

**Biogeographic Province:** Californian

**Year Designated as a Biosphere Reserve:** 1976

**Marine Sanctuary****National Park**

**Contact:** Stephen C. Jameson, Manager

**Address:** Channel Islands National  
Marine Sanctuary  
735 State Street  
Santa Barbara, California 93101  
U.S.A.

Kate Faulkner

Channel Islands  
National Park  
1901 Spinnaker Drive  
Ventura, Calif. 93001  
U.S.A.

**Telephone:** [1] (805) + 966-7107

**FAX:** [1] (805) + 568-1582

[1] (805) + 658-5700

[1] (805) + 658-5799

**Principal Monitoring and Research Themes:**

Water pollutants  
Pests and diseases  
Restoration ecology  
Cultural anthropology  
Rare/endangered species  
Biological survey and collections  
Ecology of marine and island communities

**Biosphere Reserve:** Coram

**Administrative Unit:** Coram Experimental Forest

**Administering Entity:** U.S. Department of Agriculture, Forest Service

**Location:** 48°22'-26'N, 113°58'-114°00'W

**Area (hectares):** 3,010

**Elevation Range:** 1067 - 1920m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Rocky Mountains

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Site Manager**

**Contact:** Raymond Shearer Jack A. Schmidt

**Address:** USDA Forest Service  
Intermountain Research Station  
Forestry Sciences Laboratory  
800 East Beckwith  
P.O. Box 8089  
Missoula, Montana 59807  
U.S.A.

**Telephone:** [1] (406) + 721-5694, ext. 138

**FAX:** [1] (406) + 543-2663

**E-Mail:** USFS(DG): R.Shearer:S22L01A  
USFS(DG): J.Schmidt:S22L01A

**Principal Monitoring and Research Themes:**

Plant and animal succession  
Ecology and management of Larix  
Influence of harvest on succession  
Climatic factors, soil water, and streamflow  
Influence of site treatments on succession  
Influence of thinning and cultural treatments  
on development of plant species

**Biosphere Reserve:** Denali

**Administrative Unit:** Denali National Park and Preserve

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 63°20'N, 150°30'W

**Area (hectares):** 2,441,295

**Elevation Range:** 122 - 6,194m

**Biome:** Temperate needle-leaf forests

**Biogeographic Province:** Yukon Taiga

**Year Designated as Biosphere Reserve:** 1974

**Administrative Officer**

**Site Manager**

**Contact:** Gordon Olson

Russell W. Berry, Jr.

**Address:** Denali National Park  
and Preserve  
Denali Park, Alaska 99755  
U.S.A.

Denali National Park  
and Preserve  
Denali Park, Alaska 99755  
U.S.A.

**Telephone:** [1] (907) + 683-2294

[1] (907) + 683-2294

**FAX:** [1] (907) + 683-2720

[1] (907) + 683-2720

**Principal Monitoring and Research Themes:**

Large mammal ecology  
Vegetation ecology  
Air quality  
Water quality  
Geology and soils  
Archaeology  
Subsistence use

**Biosphere Reserve:** Desert

**Administrative Unit:** Desert Experimental Range

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service, Intermountain Research Station

**Location:** 38°40'N, 113°45'W

**Area (hectares):** 22,513

**Elevation Range:** 1,547 - 2,565

**Biome:** Cold-winter desert

**Biogeographic Province:** Great Basin

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** E. Durant McArthur

**Address:** U.S. Forest Service  
Shrub Sciences Laboratory  
735 N. 500 E.  
Provo, Utah 84606  
U.S.A.

**Telephone:** [1] (801) + 377-5717

**FAX:** [1] (801) + 375-6968

**Principal Monitoring and Research Themes:**

Vascular plant inventory  
Vegetation data  
Vegetation map  
Ecological succession  
Ecosystem modeling

**Biosphere Reserve:** Everglades

**Administrative Units:** Everglades National Park and  
Fort Jefferson National Monument

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 24°50'-25°55'N, 80°20'-81°30'W

**Area (hectares):** 592,313

**Elevation Range:** 0 - 2m

**Biome:** Tropical monsoon forests  
(includes coastal/marine component)

**Biogeographic Province:** Everglades

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**      **Site Manager**

**Contact:** Michael Soukup      Richard Ring,  
Superintendent

**Address:** Everglades National Park  
P.O. Box 279  
Homestead, Florida 33030  
U.S.A.

**Telephone:** [1] (305) + 247-6211  
**FAX:** [1] (305) + 247-6211, ext. 204

**Principal Monitoring and Research Themes:**

Surface hydrology  
Water quality  
Marine ecosystems  
Vertebrate ecology  
Ecosystem restoration

**Biosphere Reserve:** Fraser

**Administrative Unit:** Fraser Experimental Forest

**Administering Entity:** U.S. Department of Agriculture

**Location:** 39°54'N, 105°53'W

**Area (hectares):** 9,328

**Elevation Range:** 2,660 - 3,904m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Rocky Mountains

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Charles Troendle

**Address:** Fraser Experimental Forest  
Rocky Mountain Forest and Range  
Experiment Station  
240 West Prospect St.  
Fort Collins, Colorado 80521  
U.S.A.

**Telephone:** [1] (303) + 726-5220

**FAX:** [1] (303) + 498-1010

**Principal Monitoring and Research Themes:**

Water quality  
Nutrient cycling  
Animal habitat

**Biosphere Reserve:** Glacier

**Administrative Unit:** Glacier National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 48°15'-49°00'N, 113°15'-114°30'W

**Area (hectares):** 410,202

**Elevation Range:** 972 - 3,185m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Rocky Mountains

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Site Manager**

**Contact:** Brace Hayden

H. Gilbert Lusk,  
Superintendent

**Address:** Glacier National Park  
West Glacier, Montana 59936  
U.S.A.

**Telephone:** [1] (406) + 888-5441

**FAX:** [1] (406) + 888-5581

**Principal Monitoring and Research Themes:**

Global climate change  
Ecosystem modeling  
Rare/endangered species  
Fire history and effects  
Limnology/hydrobiology

**Biosphere Reserve:** Glacier Bay-Admiralty Island

**Administrative Units:** Glacier Bay National Park and  
Admiralty Island National Monument

**Administering Entities:** U.S. Department of the Interior,  
National Park Service; and U.S.  
Department of Agriculture, Forest  
Service

**Location:** 57°02'-58°11'N, 132°25'W, 58°10'-59°15'N,  
135°15'-138°40'W

**Area (hectares):** 1,714,851

**Elevation Range:** 0 - 4,666m

**Biome:** Temperate needle-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Sitkan

**Year Designated as Biosphere Reserve:** 1986

**National Park****National Monument**

**Contact:** Marvin Jensen

Vivian Hoffman

**Address:** Glacier Bay National Park  
Gustavus, Alaska 99826  
U.S.A.

Admiralty Island  
National Monument  
8465 Old Dairy Rd.  
Juneau, Alaska 99801  
U.S.A.

**Telephone:**[1] (907) + 697-2232

[1] (907) + 586-8790

**FAX:** [1] (907) + 697-2410

[1] (907) + 586-8795

**Principal Monitoring and Research Themes:**

Glacial geology  
Ecological succession



**Biosphere Reserve:** Guanica

**Administrative Unit:** Guanica Commonwealth Forest Reserve

**Administering Entity:** Puerto Rico Department of Natural Resources

**Location:** 17°55'N, 67°05'W

**Area (hectares):** 4,006

**Elevation Range:** 0 - 228m

**Biome:** Mixed island systems  
(includes coastal/marine component)

**Biogeographic Province:** Greater Antillean

**Year Designated as Biosphere Reserve:** 1981

**Site Manager**

**Contact:** Miguel Canals Mora

**Address:** Department of Natural Resources  
Forest Service Area  
P.O. Box 5887-Puerta de Tierra  
San Juan, Puerto Rico 00906  
U.S.A.

**Telephone:** [1] (809) + 384-7049

**Principal Monitoring and Research Themes:**

Forest succession

**Biosphere Reserve:** H.J. Andrews

**Administrative Unit:** H.J. Andrews Experimental Forest

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 44°15'N, 122°10'W

**Area (hectares):** 6,100

**Elevation Range:** 435 - 1,631

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Sierra-Cascade

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Arthur McKee

**Address:** H.J. Andrews Experimental Forest  
P.O. Box 300  
Blue River, Oregon 97413  
U.S.A.

**Telephone:** [1] (503) + 822-3914

**FAX:** [1] (502) + 750-7329

**Principal Monitoring and Research Themes:**

Water quality  
Stream ecology  
Ecological succession

**Biosphere Reserve:** Hawaiian Islands

**Administrative Units:** Haleakala National Park and  
Hawaii Volcanoes National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 19°11'-19°33'N, 155°01'-155°39'W; 20°39'-  
20°47'N, 156°02'-156°16'W

**Area (hectares):** 99,545

**Elevation Range:** 0 - 4,170m

**Biome:** Mixed island systems  
(includes coastal/marine component)

**Biogeographic Province:** Hawaiian

**Year Designated as Biosphere Reserve:** 1980

**Administrative Officer****Site Manager**

**Contact:** Lloyd Loope

Hugo H. Huntzinger,  
Superintendent

**Address:** Haleakala National Park  
P.O. Box 369  
Makawao, Hawaii 96768  
U.S.A.

Hawaii Volcanoes  
National Park  
P.O. Box 52  
Hawaii Volcanoes, Hawaii  
96718-0052 U.S.A.

**Telephone:**[1] (808) + 572-1983

[1] (808) + 967-7311

**FAX:** [1] (808) + 572-1304

[1] (808) + 967-8186

**Principal Monitoring and Research Themes:**

Exotic species  
Ecosystem restoration  
Rare/endangered species  
Permanent plots, vegetation  
Inventory - invertebrates

**Biosphere Reserve:** Hubbard Brook

**Administrative Unit:** Hubbard Brook Experimental Forest

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 43°56'N, 71°45'W

**Area (hectares):** 3,176

**Elevation Range:** 222 - 1,015m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Lake Forest

**Year Designated as a Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** Christopher Eagar

C. Wayne Martin

**Address:** USDA Forest Service  
P.O. Box 640  
Durham, New Hampshire 03824  
U.S.A.

Hubbard Brook  
Experimental Forest  
RFD #1 Box 779  
Campton, New Hampshire  
03223 U.S.A.

**Telephone:** [1] (603) + 868-5576

[1] (603) + 726-8902

**FAX:** [1] (603) + 868-1538

[1] (603) + 868-1538

**E-Mail:** BITNET:cfederer@umdars

BITNET:cfederer@umdars

**Principal Monitoring and Research Themes:**

Hydrometeorological monitoring  
Precipitation and streamwater chemistry  
Forest succession  
Biogeochemical cycling

**Biosphere Reserve:** Isle Royale

**Administrative Unit:** Isle Royale National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 47°48'-48°16'N, 88°15'-89°20'W

**Area (hectares):** 215,740

**Elevation Range:** 184 - 425m

**Biome:** Lake systems  
(includes coastal/marine component)

**Biogeographic Province:** Great Lakes

**Year Designated as Biosphere Reserve:** 1980

**Site Manager**

**Contact:** Linda Witkowski

**Address:** Isle Royale National Park  
87 North Ripley St.  
Houghton, Michigan 49931  
U.S.A.

**Telephone:** [1] (906) + 482-0986  
[1] (906) + 337-4991

**FAX:** [1] (906) + 482-8753  
[1] (906) + 337-4984

**Principal Monitoring and Research Themes:**

Large mammal research  
Vegetation studies  
Acid precipitation

**Biosphere Reserve:** Jornada  
**Administrative Unit:** Jornada Experimental Range  
**Administering Entity:** U.S. Department of Agriculture,  
Agricultural Research Service  
**Location:** 32°37'N, 106°45'W  
**Area (hectares):** 78,297  
**Elevation Range:** 1,260 - 2,830m  
**Biome:** Warm deserts and semideserts  
**Biogeographic Province:** Chihuahuan  
**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Kris Havstad  
**Address:** P.O. Box 30003  
New Mexico State University  
Las Cruces, New Mexico 88003-0003  
U.S.A.  
**Telephone:** [1] (505) + 646-4842  
**FAX:** [1] (505) + 646-5889

**Principal Monitoring and Research Themes:**

Agricultural research  
Rangeland management  
Ecosystem restoration  
Ecological succession  
Ecological monitoring

**Biosphere Reserve:** Konza Prairie  
**Administrative Unit:** Konza Prairie Research Natural Area  
**Administering Entity:** The Nature Conservancy  
**Location:** 39°03'-39°08'N, 96°31'-96°37'W  
**Area (hectares):** 3,487  
**Elevation Range:** 320 - 444m  
**Biome:** Temperate grasslands  
**Biogeographic Province:** Grasslands  
**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** Christopher Smith  
**Address:** Kansas State University  
Division of Biology,  
Ackert Hall  
Manhattan, Kansas 66506  
U.S.A.  
**Telephone:** [1] (913) + 532-6656  
**FAX:** [1] (913) + 532-6653

**Principal Monitoring and Research Themes:**

Restoration ecology  
Ecological succession

**Biosphere Reserve:** Land Between The Lakes

**Administrative Unit:** Land Between The Lakes

**Administering Entity:** Tennessee Valley Authority

**Location:** 36°47'N, 88°03'W

**Area (hectares):** 1,560,000

**Elevation Range:** 108 - 201m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Eastern Forest

**Year Designated as Biosphere Reserve:** 1991

**Administrative Officer**

**Site Manager**

**Contact:** Thomas D. Forsythe

Ann W. Wright,  
Superintendent

**Address:** Land Between The Lakes  
100 Van Morgan Drive  
Golden Pond, Kentucky 42211  
U.S.A.

**Telephone:** [1] (502) + 924-5602

**FAX:** [1] (502) + 924-1399

**Principal Monitoring and Research Themes:**

Wildlife population dynamics  
Biological survey and collections  
Limnology, hydrobiology  
Forest research/silviculture  
Atmospheric pollutants



**Biosphere Reserve:** Luquillo

**Administrative Unit:** Luquillo Experimental Service

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 18°21'N, 65°45'W

**Area (hectares):** 11,340

**Elevation Range:** 150 - 1,080m

**Biome:** Mixed island systems

**Biogeographic Province:** Greater Antillean

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Ariel Lugo

**Address:** Institute of Tropical Forestry  
USDA Forest Service  
RWU 1152, Call Box 25000  
Rio Piedras, Puerto Rico 00928-2500  
U.S.A.

**Telephone:** [1] (809) + 766-5335

**FAX:** [1] (809) + 766-6302

**E-Mail:** BITNET: a\_gillespie@uprenet

**Principal Monitoring and Research Themes:**

Ecosystem dynamics  
Forest recreation  
Watershed management  
Wildlife management  
Tree production

**Biosphere Reserve:** Mammoth Cave Area

**Administrative Unit:** Mammoth Cave National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 37°07'-37°17'N, 86°00'-86°17'W

**Area (hectares):** 83,377

**Elevation Range:** 180 - 231m

**Biome:** Temperate broad-leaf forest

**Biogeographic Province:** Eastern Forest

**Year Designated as Biosphere Reserve:** 1990

**Administrative Officer**

**Site Manager**

**Contact:** Jeff Bradybaugh

David Mihalic,  
Superintendent

**Address:** Mammoth Cave National Park  
Mammoth Cave, Kentucky 42259  
U.S.A.

**Telephone:** [1] (502) + 758-2238

[1] (502) + 758-2251

**FAX:** [1] (502) + 758-2349

[1] (502) + 758-2349

**Principal Monitoring and Research Themes:**

Groundwater hydrology  
Water quality  
Agricultural effects of adjacent land use  
Freshwater ecosystems  
Atmospheric pollutants  
Sustainable economic development

**Biosphere Reserve:** Mojave and Colorado Deserts

**Administrative Units:** Multiple units

**Administering Entities:** California Department of Parks and Recreation; U.S. Department of the Interior, National Park Service and Bureau of Land Management; U.S. Department of Agriculture, Forest Service; and the University of California

**Location:** 33°10'N, 116°20'W; 35°39'-37°05'N, 116°22'-117°37'W; 34°N, 115°45'W; 33°30'N, 116°24'W

**Area (hectares):** 1,297,264

**Elevation Range:** -86 - 3,368m

**Biome:** Warm deserts and semideserts

**Biogeographic Province:** Sonoran

**Year Designated as Biosphere Reserve:** 1984

**Administrative Officer****Site Manager**

**Contact:** David H. Van Cleve

Edwin Rothfuss

**Address:** Anza-Borrego District  
Box 299  
Borrego Springs, California 92004  
U.S.A.

Death Valley National  
Monument  
Death Valley, California 92328  
U.S.A.

**Telephone:**[1] (619) + 767-5311

[1] (619) + 786-2331

**FAX:** [1] (619) + 767-3427

[1] (619) + 786-2344

**Principal Monitoring and Research Themes:**

Inventory-mammals  
Vegetation mapping  
Air quality  
Exotic species  
Cultural anthropology

Desert tortoise biology  
Wilderness area establishment  
Wildlife population dynamics  
Rare/endangered species  
Mining and minerals management

**Biosphere Reserve:** New Jersey Pinelands

**Administrative Unit:** Pinelands National Reserve

**Administering Entity:** Pinelands Commission (complex ownership)

**Location:** 39°45'N, 74°45'W

**Area (hectares):** 445,300

**Elevation Range:** 0 - 63m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Eastern Forest

**Year Designated as Biosphere Reserve:** 1988

**Administrative Officer**

**Contact:** Terrence D. Moore

**Address:** Pinelands Commission  
Pinelands National Reserve  
P.O. Box 7  
New Lisbon, New Jersey 08064  
U.S.A.

**Telephone:** [1] (609) + 894-9342

**FAX:** [1] (609) + 894-0026

**Principal Monitoring and Research Themes:**

Water quality  
Landscape integrity  
Wildlife and vegetation management  
Data management

**Biosphere Reserve:** Niwot Ridge  
**Administrative Unit:** Niwot Ridge  
**Administering Entity:** University of Colorado  
**Location:** 40°00'N, 105°30'W  
**Area (hectares):** 1,200  
**Elevation Range:** 2,866 - 3,780m  
**Biome:** Mixed mountain systems with complex zonation  
**Biogeographic Province:** Rocky Mountains  
**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Contact:** William Bowman  
**Address:** University of Colorado  
1560 Thirtieth Street  
Campus Box 450  
Boulder, Colorado 80309-0450  
U.S.A.  
**Telephone:** [1] (303) + 492-8841  
**FAX:** [1] (303) + 492-8699

**Principal Monitoring and Research Themes:**

Long term alpine tundra ecological processes  
Global climate change effects on alpine ecosystems  
Geomorphology

**Biosphere Reserve:** Noatak

**Administrative Units:** Gates of the Arctic National Park  
and Noatak National Preserve

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 68°N, 160°W

**Area (hectares):** 3,035,200

**Elevation Range:** 30 - 1,679m

**Biome:** Tundra

**Biogeographic Province:** Alaska Tundra

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:** Bob Gerhard

**Address:** National Park Service  
Box 1029  
Kotzebue, Alaska 99752  
U.S.A.

**Telephone:** [1] (907) + 442-3890

**FAX:** [1] (907) + 442-3482

**Principal Monitoring and Research Themes:**

Wildlife population dynamics  
Cultural anthropology  
Biological surveys and collections

**Biosphere Reserve:** Olympic

**Administrative Unit:** Olympic National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 47°29'-48°11'N, 123°07'-124°42'W

**Area (hectares):** 363,379

**Elevation Range:** 0 - 2,428m

**Biome:** Temperate rain forests  
(includes coastal/marine component)

**Biogeographic Province:** Oregonian

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** John Aho

Maureen Finnerty,  
Superintendent

**Address:** Olympic National Park  
600 East Park Avenue  
Port Angeles, Washington 98362-6798  
U.S.A.

**Telephone:** [1] (206) + 452-4501, ext.245

[1] (206) + 452-4501

**FAX:** [1] (206) + 452-0335

[1] (206) + 452-0335

**Principal Monitoring and Research Themes:**

Biogeochemical cycles  
Ecological succession  
Acid deposition  
Atmospheric pollutants  
Wildlife population dynamics  
Visitor use  
Global climate change  
Threatened/endangered species

**Biosphere Reserve:** Organ Pipe Cactus

**Administrative Unit:** Organ Pipe Cactus National Monument

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 32°00'N, 112°50'W

**Area (hectares):** 133,278

**Elevation Range:** 335 - 1,472m

**Biome:** Warm deserts and semideserts

**Biogeographic Province:** Sonoran

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Site Manager**

**Contact:** James J. Barnett

Harold J. Smith,  
Superintendent

**Address:** Organ Pipe Cactus  
Route 1, Box 100  
Ajo, Arizona 85321  
U.S.A.

**Telephone:** [1] (602) + 387-6849

**FAX:** [1] (602) + 387-7662

**Principal Monitoring and Research Themes:**

Comparative ecology  
Rare/endangered species  
Risk assessment  
Ecosystem restoration  
Watershed management



**Biosphere Reserve:** Rocky Mountain

**Administrative Unit:** Rocky Mountain National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 40°10'-40°33'N, 105°29'-105°55'W

**Area (hectares):** 106,710

**Elevation Range:** 2,328 - 4,345m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Rocky Mountains

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Homer L. Rouse  
Superintendent

**Address:** Rocky Mountain National Park  
Estes Park, Colorado 80517  
U.S.A.

**Telephone:** [1] (303) + 586-2371

**FAX:** [1] (303) + 586-4702

**Principal Monitoring and Research Themes:**

Ungulate ecology and management  
High altitude revegetation  
Global change  
Acid precipitation effects  
Aquatic ecology and management

**Biosphere Reserve:** San Dimas

**Administrative Unit:** San Dimas Experimental Forest

**Administering Entity:** U. S. Department of Agriculture,  
Forest Service

**Location:** 34°12'N, 117°46'W

**Area (hectares):** 6,947

**Elevation Range:** 381 - 1,615m

**Biome:** Evergreen sclerophyllous woodland

**Biogeographic Province:** Californian

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Sue Connard

**Address:** Forest Fire Laboratory  
4955 Canyon Crest Drive  
Riverside, California 92507  
U.S.A.

**Telephone:** [1] (714) + 276-6570

**FAX:** [1] (714) + 276-6426

**Principal Monitoring and Research Themes:**

Watershed processes  
Fire effects on ecosystems  
Evolution research  
Global climate change  
Long term monitoring of hydrology,  
stream chemistry and climate parameters

**Biosphere Reserve:** San Joaquin

**Administrative Unit:** San Joaquin Experimental Range

**Administrative Entity:** U.S. Department of Agriculture,  
Agricultural Research Service

**Location:** 37°05'N, 119°43'W

**Area (hectares):** 1,832

**Elevation Range:** 213 - 518m

**Biome:** Evergreen sclerophyllous woodland

**Biogeographic Province:** Californian

**Year Designated as a Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Gary Ritinhower

**Address:** San Joaquin  
California State University  
24075 Highway 41  
Coarsegold, California 93614  
U.S.A.

**Telephone:** [1] (209) + 278-2011

**FAX:** [1] (209) + 278-6998

**Principal Monitoring and Research Themes:**

**Biosphere Reserve:** Sequoia and Kings Canyon

**Administrative Units:** Sequoia and Kings Canyon National Parks

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 36°45'N, 118°30'W

**Area (hectares):** 343,000

**Elevation Range:** 336 - 4,418m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Sierra-Cascade

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** Jeff Manley

J. Thomas Ritter  
Superintendent

**Address:** Sequoia and Kings Canyon National Parks  
Three Rivers, California 93271  
U.S.A.

**Telephone:** [1] (209) + 565-3125

[1] (209) + 565-3341

**FAX:** [1] (209) + 565-3497

[1] (209) + 565-3497

**Principal Monitoring and Research Themes:**

Acidic deposition/atmospheric pollutants  
Biological survey and collections  
Comparative ecological research  
Fire history and effects  
Global change research

**Biosphere Reserve:** South Atlantic Coastal Plain

**Administrative Unit:** Congaree Swamp National Monument

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 33°45'N; 80°47'W, 39°45'N; 45'W

**Area (hectares):** 8,984

**Elevation Range:** 0 - 100m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Eastern Forest and Austroriparian

**Year Designated as Biosphere Reserve:** 1983

**Administrative Officer****Site Manager**

**Contact:** Rick Clark  
Resource Management Specialist

Robert S. McDaniel,  
Superintendent

**Address:** Congaree Swamp National Monument  
200 Caroline Sims Road  
Hopkins, South Carolina 29061  
U.S.A.

**Telephone:** [1] (803) + 776-4396

**FAX:** [1] (803) + 783-4241

**Principal Monitoring and Research Themes:**

Forest dynamics - regeneration, recruitment,  
and succession

Hydrology - influences on vegetation distribution

Atmospheric pollutants and acid deposition

Nutrient cycles-carbon and nitrogen

Global environmental change

**Biosphere Reserve:** Southern Appalachian

**Administrative Units:** Multiple units

**Administering Entities:** U.S. Department of Agriculture, Forest Service; U.S. Department of the Interior, National Park Service; U.S. Department of Energy (contractor: Martin Marietta, Inc.); North Carolina Department of Natural Resources; Grandfather Mountain, Inc.

**Location:** 35°36'N, 83°84'W

**Area (hectares):** 247,028

**Elevation Range:** 226 - 2,025m

**Biome:** Temperate broad-leaf forests

**Biogeographic Province:** Eastern Forest

**Year Designated as Biosphere Reserve:** 1988

**Contact:** Hubert Hinote  
**Address:** Southern Appalachian MAB Cooperative  
1314 Cherokee Orchard Road  
Great Smoky Mountain National Park  
Gatlinburg, Tennessee 37738 U.S.A.

**Telephone:** [1] (615) + 436-7120  
**FAX:** [1] (615) + 436-5598

**Principal Monitoring and Research Themes:**

Air quality	Threatened/endangered species
Exotic species	Long-term ecosystem processes
Human resources	Landscape studies
Geosciences	Environmental biotechnology
Global environment	Environmental assessment and education
Forest health	Geographic information systems
Biodiversity	Sustainable development issues
Fresh water initiatives	Resource management

**Biosphere Reserve:** Stanislaus-Tuolumne

**Administrative Unit:** Stanislaus-Tuolumne Experimental Forest

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 38°03'N, 119°57'W

**Area (hectares):** 607

**Elevation Range:** 1,585 - 1,951m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Sierra-Cascade

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Janet Wold

**Address:** Stanislaus National Forest  
19777 Greenley Road  
Sonora, California 95370  
U.S.A.

**Telephone:** [1] (209) + 532-3671

**FAX:** [1] (209) + 533-1890

**E-Mail:** USFS(DG): R05F16A

**Principal Monitoring and Research Themes:**

Climate  
Insects

**Biosphere Reserve:** Three Sisters

**Administrative Unit:** Three Sisters Wilderness

**Administering Entity:** U.S. Department of Agriculture,  
Forest Service

**Location:** 44°N, 121°50'W

**Area (hectares):** 80,900

**Elevation Range:** 600 - 3,407m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Sierra-Cascade

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Darrel Kenops

**Address:** Willamette National Forest  
P.O. Box 10607  
Eugene, Oregon 97440-2607  
U.S.A.

**Telephone:** [1] (503) + 465-6533

**FAX:** [1] (503) + 465-6717

**E-Mail:** USFS(DG): R06F18A

**Principal Monitoring and Research Themes:**

Vegetation  
Geology



**Biosphere Reserve:** University of Michigan  
**Administrative Unit:** University of Michigan Biological Station  
**Administering Entity:** University of Michigan  
**Location:** 45°34'N, 84°40'W  
**Area (hectares):** 4,048  
**Elevation Range:** 183 - 280m  
**Biome:** Temperate broad-leaf forests  
**Biogeographic Province:** Lake Forest  
**Year Designated as Biosphere Reserve:** 1979

**Site Manager**

**Contact:** James A. Teeri,  
Director  
**Address:** University of Michigan Biological Station  
111 Natural Science Building  
Ann Arbor, Michigan 48109-1048  
U.S.A.  
**Telephone:** [1] (313) + 763-4461  
**FAX:** [1] (313) + 747-1952

**Principal Monitoring and Research Themes:**

Ecological succession  
Limnology, hydrobiology  
Biological survey and collections  
Comparative ecological research  
Rare/endangered species

**Biosphere Reserve:** Virgin Islands

**Administrative Unit:** Virgin Islands National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 18°21'N, 64°44'W

**Area (hectares):** 6,127

**Elevation Range:** 0 - 389m

**Biome:** Mixed island systems  
(includes coastal/marine component)

**Biogeographic Province:** Lesser Antillean

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer****Site Manager**

**Contact:** Caroline A. Rogers

Mark A. Koenings  
Superintendent

**Address:** Virgin Islands National  
Park  
P.O. Box 710  
St. John, United States  
Virgin Islands 00830 U.S.A.

Virgin Islands National Park  
6010 Estate Nazareth, #10  
St. Thomas, United States Virgin  
Islands 00802-3406 U.S.A.

**Telephone:** [1] (809) + 776-4704

**FAX:** [1] (809) + 776-4714

**Principal Monitoring and Research Themes:**

Marine ecosystems  
Watershed management

**Biosphere Reserve:** Virginia Coast

**Administrative Unit:** Virginia Coast Reserve

**Administering Entity:** The Nature Conservancy

**Location:** 37°05'-37°34'N, 75°56'-75°37'W

**Area (hectares):** 13,511

**Elevation Range:** 0 - 10m

**Biome:** Temperate broad-leaf forests  
(includes coastal/marine component)

**Biogeographic Province:** Eastern Forest

**Year Designated as Biosphere Reserve:** 1979

**Administrative Officer**

**Site Manager**

**Contact:** John M. Hall

Barry R. Truitt

**Address:** The Nature Conservancy  
Brownsville  
Nassawadox, Virginia 23413  
U.S.A.

**Telephone:** [1] (804) + 442-3049

**FAX:** [1] (804) + 442-5418

**Principal Monitoring and Research Themes:**

Biogeochemical cycles  
Effects of sea level rise  
Geomorphological research  
Ecological succession  
Ecosystem modeling

**Biosphere Reserve:** Yellowstone

**Administrative Unit:** Yellowstone National Park

**Administering Entity:** U.S. Department of the Interior,  
National Park Service

**Location:** 44°08'-45°07'N, 109°10'-111°10'W

**Area (hectares):** 898,349

**Elevation Range:** 1,710 - 3,463m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Rocky Mountains

**Year Designated as Biosphere Reserve:** 1976

**Site Manager**

**Contact:** Robert Barbee,  
Superintendent

**Address:** P.O. Box 168  
Yellowstone National Park,  
Wyoming 82190  
U.S.A.

**Telephone:** [1] (307) + 344-2002

**FAX:** [1] (307) + 344-2323

**Principal Monitoring and Research Themes:**

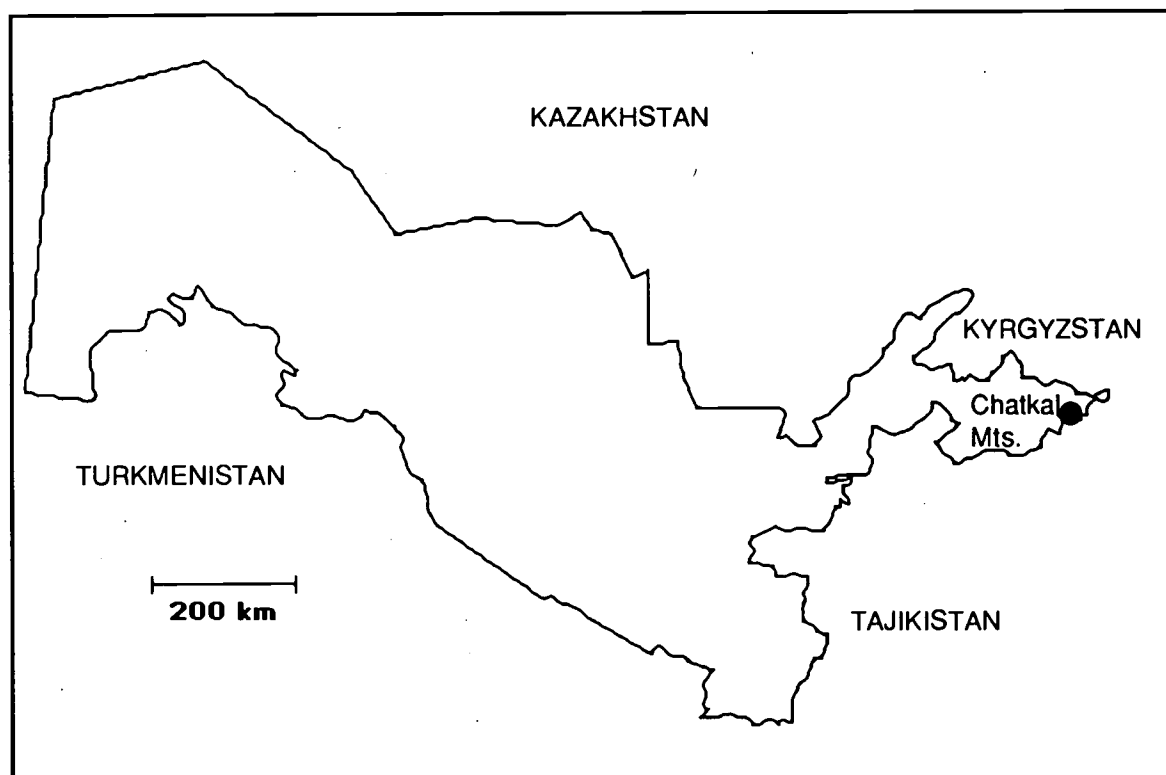
Wildlife/rangeland ecology  
Geothermal, earthquake, volcanic systems  
Endangered species restoration  
Greater Yellowstone ecosystem  
Fire ecology

**No Named National Contact for Biosphere Reserves**

See Biosphere Reserve Manager

**BIOSPHERE RESERVE LOCATION MAP**

**UZBEKISTAN**



**Biosphere Reserve:** Chatkal Mountains  
(see also Kyrgyzstan)

**Administrative Units:** Chatkal'skiy Zapovednik

**Administering Entities:** State government

**Location:** 41°08'N, 69°59'E

**Area (hectares):** 47,500

**Elevation Range:** 1,110 - 4,000m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Pamir-Tian-Shan Highlands

**Year Designated as Biosphere Reserve:** 1978

**Administrative Officer**

**Contact:**

**Address:** Chatkal'skiy Zapovednik  
Tashkent Region  
Verkhnechirchiskiy District  
Parkent Village  
Uzbekistan

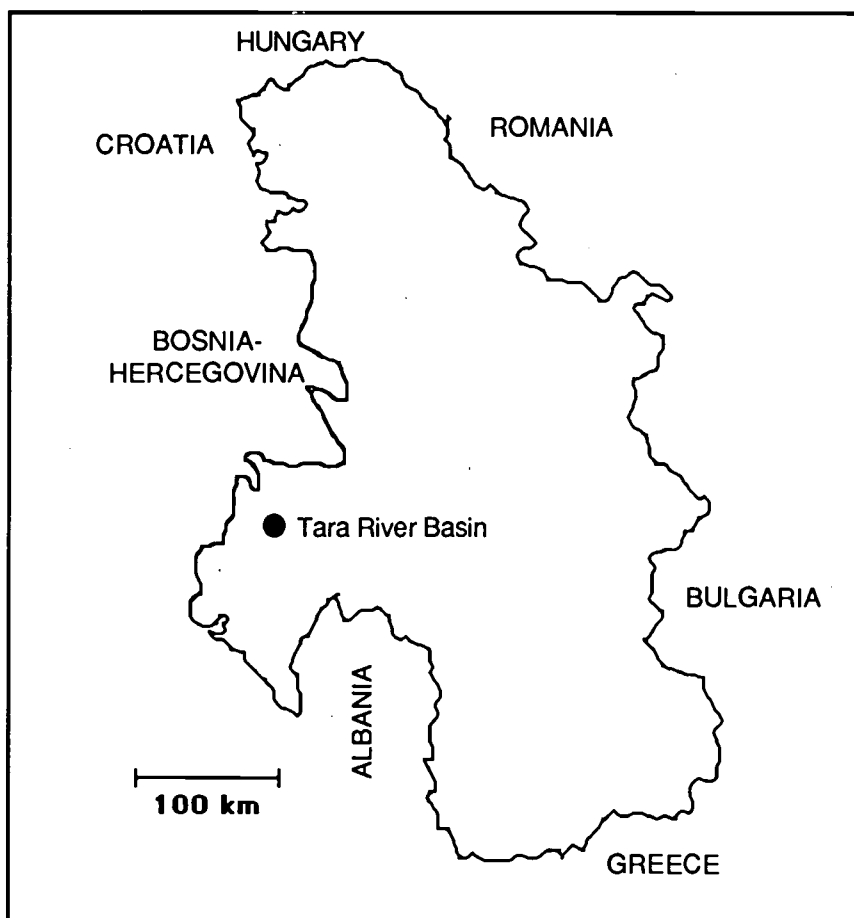
**Principal Monitoring and Research Themes:**

Floristic and faunal inventory  
Reforestation research  
Ecology of woody plants/commercial species  
Rare fauna ecology

**No National Contact Named for Biosphere Reserves.**

See Biosphere Reserve Manager

### BIOSPHERE RESERVE LOCATION MAP



\* The United States does not recognize Serbia/Montenegro, nor does it accept Serbia/Montenegro (which calls itself the "Federal Republic of Yugoslavia") as the sole successor of the Socialist Federal Republic of Yugoslavia

**Biosphere Reserve:** Tara River Basin

**Administrative Units:** Multiple Units in the Tara River Basin Ecological Reserve (includes two national parks and two virgin forest reserves)

**Administering Entity:** Institute for the Protection of Nature (State government of Montenegro)

**Location:** 42°32'N, 18°50'-19°45'E

**Area (hectares):** 200,000

**Elevation Range:** 433.- 2,522m

**Biome:** Mixed mountain systems with complex zonation

**Biogeographic Province:** Balkan Highlands

**Year Designated as Biosphere Reserve:** 1976

**Administrative Officer**

**Contact:**

**Address:** Institute for the Protection of Nature  
P.O. Box 2  
Titograd 81001  
Montenegro  
Yugoslavia\*

**Telephone:** [38] (81) +

**Principal Monitoring and Research Themes:**

\* The United States does not recognize Serbia/Montenegro, nor does it accept Serbia/Montenegro (which calls itself the "Federal Republic of Yugoslavia") as the sole successor of the Socialist Federal Republic of Yugoslavia



## **EuroMAB Biosphere Reserve Data Bases**

### **Basic Resource Information**

Biological Inventory	(7)
Ecological Monitoring	(10)
Resource Maps	(6)
Historical Records	(6)

### **Research Topics**

Ecosystems Cycles and Processes	(7)
Species Populations	(3)
Pollution	(3)
Human Systems	(7)
Management Practices	(10)

### **Site Support**

Scientific Infrastructure	(6)
Monitoring and Research Facilities	(6)
Permanent Research Staff	

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS				
INVERTEBRATES							MAMMALS							GEOLOGICAL				
BIRDS							CLIMATE							LAND USE				
NONVASCULAR PLANTS							FRESHWATER ECOSYSTEMS							REGIONAL LAND TENURE				
VASCULAR PLANTS							GROUNDWATER HYDROLOGY							SOILS				
VERTEBRATES OTHER THAN MAMMALS							MARINE ECOSYSTEMS							TOPOGRAPHIC				
BIOLOGICAL SURVEY AND COLLECTIONS							PALEOECOLOGY							VEGETATION				
							PRECIPITATION CHEMISTRY											
							SURFACE HYDROLOGY											
							VEGETATION DATA											
							WATER QUALITY											

## AUSTRIA

GOSSENKOLLESEE																							
GURGLER KAMM																							
LOBAU	6	13		15	13	X		15		16					15			X			X		X
NEUSIEDLER SEE- OSTERREICHISCHER TEIL	X	20		X	X	X		X	20	X				X	X	X	X	X	X	X	X	X	X

## BELARUS

BEREZINSKY	23	65	25	20	60	65	X	10	30	10			5	10	20	10		X	X	X	X	X	X
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## BULGARIA

ALIBOTOUCH	10				12	5	X								10		X	X		X	X	X	X
BISTRISKO BRANICHTE	10				6	10	X	20							10		X	X	X	X	X	X	X
BOATINE		4			4	4	X	3		5			5	3	4	5	X	X	X	X	X	X	X
DJENDEMA	10	10			20	10	X	50							10	10	X	X	X	X	X	X	X
DOUPKATA		2			2	2									10		X	X	X	X	X	X	X
DOUPKI-DJINDJIRITZA					6	6	X	5							10		X	X	X	X	X	X	2
KAMCHIA	3	2			4	4	X								10	10	X	X	X	X	X	X	X
KOUPENA		3			3	3	X								10	5	X	X	X	X	X	X	X
MANTARITZA		X				2									10	15	X	X	X	X	X	X	X
MARITCHINI EZERA	3	3			8	2	X	50							10		X	X	X	X	X	X	X

## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS	AERIAL PHOTOGRAPHS						
	BIBLIOGRAPHY						
	BIBLIOGRAPHY - NUMBER OF REFERENCES						
	BIBLIOGRAPHY - YEAR OF LAST REVISION						
	GEOGRAPHIC INFORMATION SYSTEM						
	HISTORY OF SCIENTIFIC STUDY						
	ECOSYSTEM CYCLES AND PROCESSES						
BIOGEOCHEMICAL CYCLES							
COMPARATIVE ECOLOGICAL RESEARCH							
ECOLOGICAL SUCCESSION							
ECOSYSTEM MODELING							
FIRE HISTORY/EFFECTS							
HYDROLOGICAL CYCLE							
SEDIMENTATION							
SPECIES POPULATIONS	PESTS AND DISEASES						
	RARE/ENDANGERED SPECIES						
	WILDLIFE POPULATION DYNAMICS						
POLLUTION	ACIDIC DEPOSITION						
	ATMOSPHERIC POLLUTANTS						
	PESTICIDES						
	WATER POLLUTANTS						

## AUSTRIA

GOSSENKOLLESEE																				
GURGLER KAMM																				
LOBAU	18	X						X			X		X		X	X				
NEUSIEDLER SEE-																				
OSTERREICHISCHER TEIL	20	X						X			X				X	X				X

## BELARUS

BEREZINSKY	30	X	1200	1986			X	X	X			X	X	X	X	X	X	X	X	X
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## BULGARIA

ALIBOTOUCH		X																		
BISTRISKO BRANICHTE		X																		
BOATINE		X																		
DJENDEMA																				
DOUPKATA																				
DOUPKI-DJINDJIRITZA																				
KAMCHIA																				
KOUPENA																				
MANTARITZA																				
MARITCHINI EZERA																				

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

MANAGEMENT PRACTICES	WATERSHED MANAGEMENT
	SOIL CONSERVATION
	TECHNOLOGIES
	RESOURCE PRODUCTION
	RECREATION/TOURISM
	RANGELAND MANAGEMENT
	MINING RECLAMATION
	GENETIC RESOURCE MANAGEMENT
	ECOSYSTEM RESTORATION
	TECHNOLOGY
HUMAN SYSTEMS	APPROPRIATE RURAL TECHNOLOGY
	AGRICULTURAL
	ARCHAEOLOGY
	CULTURAL ANTHROPOLOGY
	DEMOGRAPHY/SETTLEMENT PATTERNS
	ETHNOBIOLOGY
	LAND TENURE/USE/MANAGEMENT
RESOURCE ECONOMICS	
TRADITIONAL LAND USE	
SYSTEMS	

## AUSTRIA

GOSSENKOLLESEE																		
GURGLER KAMM												X					X	
LOBAU																		
NEUSIEDLER SEE-OSTERREICHISCHER TEIL							X				X				X			

## BELARUS

BEREZINSKY							X		X	X	X	X	X	X	X	X	X	
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## BULGARIA

ALIBOTOUGH																		
BISTRISKO BRANICHTE																	X	
BOATINE																		
DJENDEMA																		
DOUPKATA																		
DOUPKI-DJINDJIRITZA																		
KAMCHIA							X										X	
KOUPENA																		
MANTARITZA																		
MARITCHINI EZERA																	X	

**X = EXISTING PROGRAM    🍏 = PRIORITY AREA**

**X = EXISTING PROGRAM    🍏 = PRIORITY AREA**

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

MONITORING AND RESEARCH FACILITIES	PERMANENT RESEARCH STAFF
	WEATHER STATION
	WATERSHED RESEARCH SITE
	VEGETATION
	PERMANENT PLOTS:
	LAKE/STREAM
	PERMANENT PLOTS:
INFRASTRUCTURE	HYDROLOGICAL STATION
	AIR POLLUTION STATION
	ROAD ACCESS
	LODGING FOR SCIENTISTS
	LIBRARY
	LABORATORY
	CURATORIAL FACILITY
	CONFERENCE FACILITIES

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

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## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS								
INVERTEBRATES	MAMMALS	BIRDS	NONVASCULAR PLANTS	VASCULAR PLANTS	VERTEBRATES OTHER THAN MAMMALS	BIOLOGICAL SURVEY AND COLLECTIONS	AIR QUALITY	CLIMATE	FRESHWATER ECOSYSTEMS	GROUNDWATER HYDROLOGY	MARINE ECOSYSTEMS	PALEOECOLOGY	PRECIPITATION CHEMISTRY	SURFACE HYDROLOGY	VEGETATION DATA	WATER QUALITY	GEOLOGICAL	LAND USE	REGIONAL LAND TENURE	SOILS	TOPOGRAPHIC	VEGETATION

## BULGARIA (CONT.)

OUZOUNBOUDJAK				3	3	X								3	10		X	X		X	X	X
PARANGALITZA	4	2		5	2	X		5					2	4	10	5	X	X	X	X	X	X
SREBARNA		5		5	40	X		5	2	3	X			5	X	X	5	X	X	X	X	X
STENETO	4	6		6	8	X	3	20					2	15	7	15	X	X	X	X	X	X
TCHERVENATA STENA	X			8	2	X									10		X	X	X	X	X	X
TCHOUPRENE					3	X									10		X	X	X	X	X	X
TSARITCHINA	5	15		4	15	X		30		5					4		X	X	X	X	X	X

## CANADA

CHARLEVOIX	X	X		X	X	X	X	X	X		X		X	X		X	X	X		X	X	X
LONG POINT	X	X		X	X	X	X		X			X		X	X	X			X	X	X	X
MONT-ST.-HILAIRE	5	5		5	5	X		10	28	X			3	X	28	28	X	X		X	X	X
NIAGARA ESCARPMENT	X	X		X	X	X	X	X	X	X				X	2	X	X	X	X	X	X	X
RIDING MOUNTAIN		50	X					30		20			5	50		30	X		X	X	X	X
WATERTON LAKES				30		X																

239

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## CROATIA

VELEBIT MOUNTAIN	X	X			X	X	X	30	30				3		X	X	X	X	X	X	X	X
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## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS						ECOSYSTEM CYCLES AND PROCESSES							SPECIES POPULATIONS		POLLUTION																										
AERIAL PHOTOGRAPHS		BIBLIOGRAPHY		BIBLIOGRAPHY - NUMBER OF REFERENCES		BIBLIOGRAPHY - YEAR OF LAST REVISION		GEOGRAPHIC INFORMATION		SYSTEM		HISTORY OF SCIENTIFIC STUDY		BIOGEOCHEMICAL CYCLES		COMPARATIVE ECOLOGICAL RESEARCH		ECOLOGICAL SUCCESSION		ECOSYSTEM MODELING		FIRE HISTORY/EFFECTS		HYDROLOGICAL CYCLE		SEDIMENTATION		PESTS AND DISEASES		RARE/ENDANGERED SPECIES		WILDLIFE POPULATION DYNAMICS		ACIDIC DEPOSITION		ATMOSPHERIC POLLUTANTS		PESTICIDES		WATER POLLUTANTS	

## BULGARIA (CONT.)

OUZOUNBOUDJAK									X		X	X		X					
PARANGALITZA	X										X	X		X					
SREBARNA	30	X					X			X	X	X	X	X					X
STENETO	X						X				X	X		X			X		
TCHERVENATA STENA	X										X	X		X					
TCHOUPRENE												X							
TSARITCHINA	X						X	X	X		X	X		X					

## CANADA

CHARLEVOIX	X	X						X		X				X		X			X
LONG POINT	X	X	300	1990				X			X	X		X	X		X		X
MONT-ST-HILAIRE	3	X						X				X				X	X		
NIAGARA ESCARPMENT	X	X						X		X				X	X	X	X		X
RIDING MOUNTAIN	60	X	1200	1974							X	X			X				
WATERTON LAKES		X					X	X							X				

## CROATIA

VELEBIT MOUNTAIN	X	X						X	X			X		X		X			
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## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

HUMAN SYSTEMS	ARCHAEOLOGY									
	CULTURAL ANTHROPOLOGY									
	DEMOGRAPHY/SETTLEMENT PATTERNS									
	ETHNOBIOLOGY									
	LAND TENURE/USE/MANAGEMENT									
	RESOURCE ECONOMICS									
	TRADITIONAL LAND USE SYSTEMS									
	MANAGEMENT PRACTICES									
	AGRICULTURAL									
	APPROPRIATE RURAL TECHNOLOGY									
ECOSYSTEM RESTORATION										
GENETIC RESOURCE MANAGEMENT										
MINING RECLAMATION										
RANGELAND MANAGEMENT										
RECREATION/TOURISM										
RESOURCE PRODUCTION TECHNOLOGIES										
SOIL CONSERVATION										
WATERSHED MANAGEMENT										

## BULGARIA (CONT.)

OUZOUNBOUDJAK							X									X	
PARANGALITZA							X		X	X				X			
SREBARNA								X									
STENETO																X	
TCHERVENATA STENA																	
TCHOUPRENE																	
TSARITCHINA																X	

## CANADA

CHARLEVOIX	X	X								X		X		X		X	
LONG POINT	X	X	X		X	X				X							
MONT-ST.-HILAIRE										X	X	X		X			
NIAGARA ESCARPMENT	X	X	X					X		X	X	X		X		X	
RIDING MOUNTAIN	X	X	X		X					X						X	
WATERTON LAKES	X	X						X	X				X	X		X	

## CROATIA

VELEBIT MOUNTAIN	X															X	
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X = EXISTING PROGRAM    🍏 = PRIORITY AREA

X = EXISTING PROGRAM 

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

INFRASTRUCTURE	CONFERENCE FACILITIES	MONITORING AND RESEARCH FACILITIES	PERMANENT RESEARCH STAFF
	CURATORIAL FACILITY		WEATHER STATION
	LABORATORY		WATERSHED RESEARCH SITE
	LIBRARY		PERMANENT PLOTS: VEGETATION
	LODGING FOR SCIENTISTS		PERMANENT PLOTS: LAKE/STREAM
	ROAD ACCESS		HYDROLOGICAL STATION
			AIR POLLUTION STATION

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

**BULGARIA (CONT.)**

POLARINA (Cont.)										
OUZOUNBOUDJAK										14
PARANGALITZA					X	4		X		28
SREBARNA	X	X	X	X	X	10		X	X	43
STENETO						15		X	X	29
TCHERVENATA STENA										13
TCHOUUPRENE										9
TSARITCHINA	X						20	X	X	26

# CANADA

[illegible]

## CROATIA

[illegible]

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS								
INVERTEBRATES	MAMMALS	BIRDS	NONVASCULAR PLANTS	VASCULAR PLANTS	VERTEBRATES OTHER THAN MAMMALS	BIOLOGICAL SURVEY AND COLLECTIONS	AIR QUALITY	CLIMATE	FRESHWATER ECOSYSTEMS	GROUNDWATER HYDROLOGY	MARINE ECOSYSTEMS	PALEOECOLOGY	PRECIPITATION CHEMISTRY	SURFACE HYDROLOGY	VEGETATION DATA	WATER QUALITY	GEOLOGICAL	LAND USE	REGIONAL LAND TENURE	SOILS	TOPOGRAPHIC	VEGETATION

## CZECH REPUBLIC

KRIVOKLATSKO	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X			X	X	X	X
KRKONOSE	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X
PALAVA	X	X	X	X	X	X		50	X					50	X	X	X	X		X	X	X	X
SUMAVA	X	X	X	X	X	X	X	X	X	X		X	X			X	X			X	X	X	X
TREBON BASIN	10	20	X	20	20	X	5	50	20	X		X		50	20	X	X	X		X	X	X	X

## DENMARK

NORTH-EAST GREENLAND	30	60		10	60	X	2	40					2		10		X				X	X	X
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## ESTONIA

WEST ESTONIAN ARCHIPELAGO	X	X		X	X		X	X		X			X	X		X	X	X		X			
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## FINLAND

NORTHERN KARELIAN	X	X	X	X	X	X	X	X	X	X			X	X		X	X			X	X	X	X
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## FRANCE

ATOLL DE TAIARO																							
CAMARGUE	X	X	X	60	60		X	47	54	15				34	60	16	X	X	X	X	X	140	X
CEVENNES	15	15		X	15	15	X	2	100	10	30	X	5	10	15	10	80	30		X	X	100	30

## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

	HISTORICAL RECORDS						ECOSYSTEM CYCLES AND PROCESSES								SPECIES POPULATIONS				POLLUTION			
	AERIAL PHOTOGRAPHS	BIBLIOGRAPHY	BIBLIOGRAPHY - NUMBER OF REFERENCES	BIBLIOGRAPHY - YEAR OF LAST REVISION	GEOGRAPHIC INFORMATION SYSTEM	HISTORY OF SCIENTIFIC STUDY	BIOGEOCHEMICAL CYCLES	COMPARATIVE ECOLOGICAL RESEARCH	ECOLOGICAL SUCCESSION	ECOSYSTEM MODELING	FIRE HISTORY/EFFECTS	HYDROLOGICAL CYCLE	SEDIMENTATION	PESTS AND DISEASES	RARE/ENDANGERED SPECIES	WILDLIFE POPULATION DYNAMICS	ACIDIC DEPOSITION	ATMOSPHERIC POLLUTANTS	PESTICIDES	WATER POLLUTANTS		
CZECH REPUBLIC																						
KRIVOKLATSKO	X	X	300	1992	X	X	X	X	X			X	X	X	X	X	X	X		X	X	
KRKONOSE	X	X	1200	1992	X	X	X	X	X	X			X	X	X	X	X	X	X			
PALAVA	X	X	450	1992		X	X	X	X	X				X	X	X						
SUMAVA	X	X	350	1992		X	X	X	X	X		X		X	X	X	X	X	X			
TREBON BASIN	X	X	450	1992	X	X	X	X	X	X		X		X	X	X						
DENMARK																						
NORTH-EAST GREENLAND	25	X				X	X	X							X	X	2	2				
ESTONIA																						
WEST ESTONIAN ARCHIPELAGO													X		X	X						
FINLAND																						
NORTHERN KARELIAN	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
FRANCE																						
ATOLL DE TAIARO																						
CAMARGUE	50	11				X		X	X	X		X	X		X	X						
CEVENNES	25	100			X		X	X	X	X	X	X	X		X	X	X	X	X		X	

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

MANAGEMENT PRACTICES	WATERSHED MANAGEMENT
	SOIL CONSERVATION
	TECHNOLOGIES
	RESOURCE PRODUCTION
	RECREATION/TOURISM
	RANGELAND MANAGEMENT
	MINING RECLAMATION
	GENETIC RESOURCE MANAGEMENT
	ECOSYSTEM RESTORATION
	TECHNOLOGY
HUMAN SYSTEMS	APPROPRIATE RURAL
	AGRICULTURAL
	ARCHAEOLOGY
	CULTURAL ANTHROPOLOGY
	DEMOGRAPHY/SETTLEMENT PATTERNS
	ETHNOBIOLOGY
	LAND TENURE/USE/MANAGEMENT
	RESOURCE ECONOMICS
TRADITIONAL LAND USE SYSTEMS	

## CZECH REPUBLIC

KRIVOKLATSKO	X		X				X	X		X	X	X			X		X
KRKONOSE			X		X		X	X	X	X	X	X		X	X	X	X
PALAVA		X	X	X			X	X	X	X	X			X		X	X
SUMAVA	X							X	X	X	X				X		
TREBON BASIN	X		X		X	X	X	X	X	X		X	X	X	X	X	X

## DENMARK

NORTH-EAST GREENLAND										X		X					
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## ESTONIA

WEST ESTONIAN ARCHIPELAGO							X						X	X		X	
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## FINLAND

NORTHERN KARELIAN		X		X	X		X	X	X	X		X		X	X	X	X
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## FRANCE

ATOLL DE TAIARO																	
CAMARGUE							X			X				X			
CEVENNES	X	X		X			X	X			X	X		X		X	X

## SITE SUPPORT

X = EXISTING PROGRAM    \* = PRIORITY AREA  
# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

MONITORING AND RESEARCH FACILITIES	INFRASTRUCTURE						PERMANENT RESEARCH STAFF
	CONFERENCE FACILITIES	CURATORIAL FACILITY	LABORATORY	LIBRARY	LODGING FOR SCIENTISTS	ROAD ACCESS	
							AIR POLLUTION STATION
							HYDROLOGICAL STATION
							PERMANENT PLOTS: LAKE/STREAM
							PERMANENT PLOTS: VEGETATION
							WATERSHED RESEARCH SITE
							WEATHER STATION

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

## CZECH REPUBLIC

KRIVOKLATSKO	X			X	6	X	X	X			2	X	X	49
KRKONOSE	X			X		X			X	X	X	X		54
PALAVA	X			X	10	X	X		X	X		X	X	46
SUMAVA	X				20	X	X		X	X		X	X	49
TREBON BASIN	X	X	X	X	X	X	5	X		2		X	10	59

## DENMARK

NORTH-EAST GREENLAND	2	2	2	2		2	2	2		X		25		32
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## ESTONIA

WEST ESTONIAN ARCHIPELAGO	X		X	X	25		X	X				X	35	28
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## FINLAND

NORTHERN KARELIAN	X	X	X	X	95	X	X	X	X	X	X	X		60
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## FRANCE

ATOLL DE TAIARO														0
CAMARGUE	X		X	X	X	X		X		17		X	20	40
CEVENNES	X		2	20	X	X		3		3	4	10	15	53

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS					
INVERTEBRATES							AIR QUALITY							GEOLOGICAL					
MAMMALS							CLIMATE							LAND USE					
BIRDS							FRESHWATER ECOSYSTEMS							REGIONAL LAND TENURE					
NONVASCULAR PLANTS							GROUNDWATER HYDROLOGY							SOILS					
VASCULAR PLANTS							MARINE ECOSYSTEMS							TOPOGRAPHIC					
VERTEBRATES OTHER THAN MAMMALS							PALEOECOLOGY							VEGETATION					
BIOLOGICAL SURVEY AND COLLECTIONS							PRECIPITATION CHEMISTRY							WATER QUALITY					
							SURFACE HYDROLOGY							VEGETATION DATA					

## FRANCE (CONT.)

GUADELOUPE ARCHIPELAGO	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X
IROISE	X	X	X	15	X	X		100	X	X	X			X	30	X	X	X	X	5	X	5
MONT VENTOUX	X		X	X	X	X		X	X	X				X	X	X	X	X	X		X	
VALLEE DU FANGO	X	X	X	X	X	X		14	X				X	X	X	X	X	X	X		X	X
VOSGES DU NORD	X	15	X	15	X	X	X	X	X				2	X	X	X	X	X	X		X	X

## GERMANY

BAYERISCHER WALD	X	X	X	X	X	X	X	X	X	X				X	X	13	X	X	X		X	X
BERCHTESGADEN ALPS	X	X	X	X	X	X	X	X	X	X			X	X	12	X	X	X	61	X	X	X
MIDDLE ELBE	X		X	X	X	X	X	X	X	X						X	X	X		X	X	X
PFAELZERWALD	X		X	X	X	X	X	X	X	X			X	X		X	X	X		X	X	X
RHOEN	X	X	X	X	X	X	X	X	X	X			X	X		X	X	X		X	X	X
RUEGEN	X	X	X	X	X	X	X	X	X	X			X	X		X	X	X		X	X	X
SCHORFHEIDE-CHORIN	X	X	X	X	X	X	X	X	X	X			X	X		X	X	X		X	X	X
SPREEWALD	X	X	X	X	X	X	X	X	X	X			X	X		X	X	X		X	X	X
VESSERTAL-THURINGIAN FOREST	X	X	X	X	X	X	X	X	X	X				X		X	X	X		X	X	X
WADDENSEA OF HAMBURG	X	X	X	X	X	X	X	X	X	X				X		X	X	X		X	X	X
WADDENSEA OF LOWER SAXONY	X	X	X	X	X	X	X	X	X	X				X		X	X	X		X	X	X
WADDENSEA OF SCHLESWIG-HOLSTEIN	X	X	X	X	X	X	X	X	X	X				X		X	X	X		X	X	X



## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS ♣ = PRIORITY AREA

HISTORICAL RECORDS	ECOSYSTEM CYCLES AND PROCESSES						SPECIES POPULATIONS	POLLUTION
	BIOGEOCHEMICAL CYCLES							
	COMPARATIVE ECOLOGICAL RESEARCH							
	ECOLOGICAL SUCCESSION							
	ECOSYSTEM MODELING							
	FIRE HISTORY/EFFECTS							
	HYDROLOGICAL CYCLE							
SEDIMENTATION								
PESTS AND DISEASES								
RARE/ENDANGERED SPECIES								
WILDLIFE POPULATION DYNAMICS								
ACIDIC DEPOSITION								
ATMOSPHERIC POLLUTANTS								
PESTICIDES								
WATER POLLUTANTS								

## FRANCE (CONT.)

GUADELOUPE ARCHIPELAGO	X	X	900	1992	X	X	X	X	X	X			X	X
IROISE	60	X	1400	1993	X	X		X	X	X				X
MONT VENTOUX	X					X	X	X	X	X				
VALLEE DU FANGO	X	X				X	X	X	X	X	X	X		X
VOSGES DU NORD	12	X			X	X	X		X	X	X	X	X	X

## GERMANY

BAYERISCHER WALD	14	X				X	X	X	X	X	X	X	X	X
BERCHTESGADEN ALPS	3	X	200	1992		X	X	X	X	X	X			
MIDDLE ELBE	X	X				X	X	X	X	X	X	X	X	X
PFAELZERWALD	X	X				X	X	X	X	X	X	X		
RHOEN	X	X			X	X	X	X	X	X	X	X		
RUEGEN	X	X			X	X	X	X	X	X	X	X		
SCHORFHEIDE-CHORIN	X	X				X	X	X	X	X	X	X	X	X
SPEERWALD	X	X		1991	X	X	X	X	X	X	X	X	X	X
VESSERTAL-THURINGIAN FOREST	X	X				X	X	X	X	X	X	X		X
WADDENSEA OF HAMBURG	X													
WADDENSEA OF LOWER SAXONY	X	X			X	X	X	X	X	X		X	X	X
WADDENSEA OF SCHLESWIG-HOLSTEIN	X	X	1000	1992	X	X	X	X	X	X		X	X	X

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

MANAGEMENT PRACTICES	WATERSHED MANAGEMENT	
	SOIL CONSERVATION	
	TECHNOLOGIES	
	RESOURCE PRODUCTION	
	RECREATION/TOURISM	
	RANGELAND MANAGEMENT	
	MINING RECLAMATION	
	GENETIC RESOURCE MANAGEMENT	
	ECOSYSTEM RESTORATION	
	TECHNOLOGY	
	APPROPRIATE RURAL	
	AGRICULTURAL	
	HUMAN SYSTEMS	ARCHAEOLOGY
		CULTURAL ANTHROPOLOGY
		DEMOGRAPHY/SETTLEMENT PATTERNS
		ETHNOBIOLOGY
		LAND TENURE/USE/MANAGEMENT
RESOURCE ECONOMICS		
TRADITIONAL LAND USE SYSTEMS		

## FRANCE (CONT.)

GUADELOUPE ARCHIPELAGO	X	X		X	X		X	X	X	X	X			X	X	X	X
IROISE	X	X	X	X	X		X	X	X		X		X	X		X	
MONT VENTOUX		X		X				X	X	X		X	X	X		X	X
VALLEE DU FANGO	X			X			X	X	X	X				X			X
VOSGES DU NORD		X					X	X	X	X	X		X	X		X	

## GERMANY

BAYERISCHER WALD							X			X		X	X	X		X	X
BERCHTESGADEN ALPS							X	X		X			X	X		X	X
MIDDLE ELBE		X						X		X		X	X	X			
PFAELZERWALD	X			X			X			X				X	X		
RHOEN		X					X	X	X	X	X	X	X	X		X	X
RUEGEN	X	X	X		X	X	X	X		X	X	X	X	X		X	X
SCHORFHEIDE-CHORIN		X					X	X	X	X	X	X		X		X	X
SPREEWALD		X					X	X	X	X	X	X		X		X	X
VESSERTAL-THURINGIAN FOREST							X		X		X	X	X	X			X
WADDENSEA OF HAMBURG																	
WADDENSEA OF LOWER SAXONY			X	X	X		X			X						X	
WADDENSEA OF SCHLESWIG-HOLSTEIN	X	X	X		X	X		X	X	X		X	X	X	X	X	X



## SITE SUPPORT

X = EXISTING PROGRAM \* = PRIORITY AREA

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

MONITORING AND RESEARCH FACILITIES	INFRASTRUCTURE					
	CONFERENCE FACILITIES	CURATORIAL FACILITY	LABORATORY	LIBRARY	LODGING FOR SCIENTISTS	ROAD ACCESS
	AIR POLLUTION STATION					
	HYDROLOGICAL STATION					
	PERMANENT PLOTS: LAKE/STREAM					
	PERMANENT PLOTS: VEGETATION					
	WATERSHED RESEARCH SITE					
	WEATHER STATION					
	PERMANENT RESEARCH STAFF					

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

## FRANCE (CONT.)

GUADELOUPE ARCHIPELAGO	X	X	X	X	10	X		X	X	X	X	X	20
IROISE	X	X	X	X	42	X		X		75		X	7
MONT VENTOUX	X		X	X	X	X					X	X	16
VALLEE DU FANGO	X		X		15	X		X	5	8		X	6
VOSGES DU NORD	X		X	X	X	X	X			X		X	X

56  
51  
44  
46  
49

## GERMANY

BAYERISCHER WALD	X	X		X	70	X	X	X	X	X	X	X	5
BERCHTESGADEN ALPS	X	X	X	X	15	X		X	X	20	X	X	7
MIDDLE ELBE	X			X		X				X			
PFAELZERWALD	X		X	X	X	X	X					X	
RHOEN	X		X	X	10	X	X	X		X	X	X	
RUEGEN	X	X				X		X			X	X	
SCHORFHEIDE-CHORIN	X		X	X	50		X	X	X	X	X	X	
SPREEWALD	X			X	10		X	X	X	X	X	X	
VESSERTAL-THURINGIAN FOREST	X					X	X			X		2	7
WADDENSEA OF HAMBURG	X		X		X						X		
WADDENSEA OF LOWER SAXONY	X	X	X	X			X			X		X	
WADDENSEA OF SCHLESWIG- HOLSTEIN	X	X	X	X	40	X	X	X	X	X	X	X	50

54  
50  
42  
39  
50  
45  
49  
54  
41  
21  
46  
65

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS				
INVERTEBRATES							MAMMALS							GEOLOGICAL				
BIRDS							FRESHWATER ECOSYSTEMS							LAND USE				
NONVASCULAR PLANTS							GROUNDWATER HYDROLOGY							REGIONAL LAND TENURE				
VASCULAR PLANTS							MARINE ECOSYSTEMS							SOILS				
VERTEBRATES OTHER THAN MAMMALS							PALEOECOLOGY							TOPOGRAPHIC				
BIOLOGICAL SURVEY AND COLLECTIONS							PRECIPITATION CHEMISTRY							VEGETATION				

## GREECE

GORGE OF SAMARIA	X	X	X	X	X	X		X						X	X		X	X	X	X	X	X	X
MOUNT OLYMPUS	X	X	X	X	X	X		X						X	X		X	X	X	X	X	X	X

## HUNGARY

AGGTELEK						X	3	3		20			X	20			2						
HORTOBAGY	10	10	10	10	10	X	5	35	10	40			5	100	40	40	X	10		X	X	X	X
KISKUNSAG	13	13	13	13	13	X	8	13	13	10				13	13	13	10	13		X	X	X	X
LAKE FERTO	13	13	13	13	13	X	X	X	8	X			X	X	38	X	6					X	X
PILIS	28	40	30	30	28	X		40	5					40	30	5	X				X	X	X

## IRELAND

KILLARNEY	X	X	X	X	X	X		X	19			X			23	19	X		X		X	X	X
NORTH BULL ISLAND											X								X		X	X	X

## ITALY

CIRCEO		X	X	X	X	X		X	X					X	X	X	X				X	X	X
COLLEMELUCCIO-																							
MONTEDIMEZZO			X	X		X		X							X		X		X			X	
MIRAMARE	91		89	89		90		90			89				88		91	89		91	88		

## KYRGYZSTAN

CHATKAL MOUNTAINS						X	3	X	3					15	40	3					X		
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## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS						ECOSYSTEM CYCLES AND PROCESSES							SPECIES POPULATIONS		POLLUTION			
AERIAL PHOTOGRAPHS						BIOGEOCHEMICAL CYCLES							PESTS AND DISEASES		ACIDIC DEPOSITION			
BIBLIOGRAPHY						COMPARATIVE ECOLOGICAL RESEARCH							RARE/ENDANGERED SPECIES		ATMOSPHERIC POLLUTANTS			
BIBLIOGRAPHY - NUMBER OF REFERENCES						ECOLOGICAL SUCCESSION							WILDLIFE POPULATION DYNAMICS		PESTICIDES			
BIBLIOGRAPHY - YEAR OF LAST REVISION						ECOSYSTEM MODELING									WATER POLLUTANTS			
GEOGRAPHIC INFORMATION SYSTEM						FIRE HISTORY/EFFECTS												
HISTORY OF SCIENTIFIC STUDY						HYDROLOGICAL CYCLE												

## GREECE

GORGE OF SAMARIA	X	X								X					X				
MOUNT OLYMPUS	X	X								X					X				

## HUNGARY

AGGTELEK	X					X						X				X	X		X
HORTOBAGY	5	10									X	X		X		X	X		X
KISKUNSG	2	13				X	X		X	X	X	X		X	X				
LAKE FERTO	X	16				X	X		X		X	X		X	X	X			X
PILIS	30	X				X	X		X		X	X		X	X	X	X		X

## IRELAND

KILLARNEY	X	X	150	1992		X	X			X					X				X
NORTH BULL ISLAND	X	X						2				X			X				

## ITALY

CIRCEO	X	X						X	X	X	X	X							X
COLLEMELUCCIO-																			
MONTEDIMEZZO		X					X			X	X			X					
MIRAMARE		X					X								X				

## KYRGYZSTAN

CHATKAL MOUNTAINS		X										X			X		X	X	X
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## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

MANAGEMENT PRACTICES	WATERSHED MANAGEMENT
	SOIL CONSERVATION
	TECHNOLOGIES
	RESOURCE PRODUCTION
	RECREATION/TOURISM
	RANGELAND MANAGEMENT
	MINING RECLAMATION
	GENETIC RESOURCE MANAGEMENT
	ECOSYSTEM RESTORATION
	TECHNOLOGY
HUMAN SYSTEMS	APPROPRIATE RURAL TECHNOLOGY
	AGRICULTURAL
	ARCHAEOLOGY
	CULTURAL ANTHROPOLOGY
	DEMOGRAPHY/SETTLEMENT PATTERNS
	ETHNOBIOLOGY
	LAND TENURE/USE/MANAGEMENT
RESOURCE ECONOMICS	
TRADITIONAL LAND USE SYSTEMS	

## GREECE

GORGE OF SAMARIA	X		X			X								X			
MOUNT OLYMPUS					X												

## HUNGARY

AGGTELEK							X	X	X			X					
HORTOBAGY			X				X	X	X			X					
KISKUNSAG							X	X	X		X						
LAKE FERTO							X										
PILIS	X		X							X	X	X		X			

## IRELAND

KILLARNEY								X		X				X			
NORTH BULL ISLAND									X	X				X			

## ITALY

CIRCEO										X				X			
COLLELUCCIO-							X										
MONTEDIMEZZO										X				X			
MIRAMARE														X		X	

## KYRGYZSTAN

CHATKAL MOUNTAINS							X					X	X			X	
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## SITE SUPPORT

X = EXISTING PROGRAM \* = PRIORITY AREA

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

		MONITORING AND RESEARCH FACILITIES						PERMANENT RESEARCH STAFF	NUMBER OF TYPES OF RECORDS, PROGRAMS, FACILITIES (MAXIMUM = 71)			
INFRASTRUCTURE		CONFERENCE FACILITIES	CURATORIAL FACILITY	LABORATORY	LIBRARY	LODGING FOR SCIENTISTS	ROAD ACCESS					
						AIR POLLUTION STATION	HYDROLOGICAL STATION	PERMANENT PLOTS: LAKE/STREAM	PERMANENT PLOTS: VEGETATION	WATERSHED RESEARCH SITE	WEATHER STATION	

## GREECE

GORGE OF SAMARIA		X			X	X										25
MOUNT OLYMPUS		X			X	X										26

## HUNGARY

AGGTELEK	X				20	X	X	X						X		21
HORTOBAGY	X		X		28		X	X						X	7	40
KISKUNSAG	X		X	X	90		X	X						X	5	41
LAKE FERTO	X		X		4	X	X	X						X		32
PILIS	X													X		36

## IRELAND

KILLARNEY	X		X			X				9	53			X		31
NORTH BULL ISLAND	2	2	X	X		X	X	X								17

## ITALY

CIRCEO	X			X	X	X		X						X		32
COLLEMELUCCIO-																
MONTEDIMEZZO					X	X								X		20
MIRAMARE			X	X		X		X						X		22

## KYRGYZSTAN

CHATKAL MOUNTAINS	X		X	X	5		X	X						X	19	27
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## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS				
INVERTEBRATES							AIR QUALITY							GEOLOGICAL				
MAMMALS							CLIMATE							LAND USE				
BIRDS							FRESHWATER ECOSYSTEMS							REGIONAL LAND TENURE				
NONVASCULAR PLANTS							GROUNDWATER HYDROLOGY							SOILS				
VASCULAR PLANTS							MARINE ECOSYSTEMS							TOPOGRAPHIC				
VERTEBRATES OTHER THAN MAMMALS							PALEOECOLOGY							VEGETATION				
BIOLOGICAL SURVEY AND COLLECTIONS							PRECIPITATION CHEMISTRY							VEGETATION DATA				
							SURFACE HYDROLOGY							WATER QUALITY				

## NETHERLANDS

WADDENSEA AREA	30	30		30	100	50	X		100		99			99	30	30	X			X	X	X	X
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## NORWAY

NORTH-EAST SVALBARD																						
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## POLAND

BABIA GORA	120	120		120	180	120	X	5	30	4	14			5	24	55		X	X		X	X	X
BIALOWIEZA	81	74		101	102	74	X	6	68		44			6	21	73	15	X			X	X	X
EASTERN BESKID	X	X		X	X	X	X	X	X	X	X			X	X		X	X			X	X	X
KARKONOSZE	X	X		X	X	X	X	X	X		X			X	X		X	X			X	X	X
LUKAJNO LAKE	20	20		16			X	10		X					6	73	15					X	X
SLOWINSKI		X					X	X	40					X		X	2		X		X	X	X
TATRA MOUNTAINS	X	X		X	X	X	X	X	X	X	X			X	X		X	X	X		X	X	X

## PORTUGAL

PAUL DO BOQUILOBO					5	6	X											X					
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## ROMANIA

DANUBE DELTA	X	X		X	X	X	X		X	X		X			X		X	X		X	X	X	X
PIETROSUL MARE	10	30		30	30	30	X		50	10	10				50	60	30	80	30		20	100	60
RETEZAT	10	50		50	50	50	X		50	10	10				50	70	30	80	50		20	100	60



## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS						ECOSYSTEM CYCLES AND PROCESSES							SPECIES POPULATIONS			POLLUTION			
AERIAL PHOTOGRAPHS	BIBLIOGRAPHY	BIBLIOGRAPHY - NUMBER OF REFERENCES	BIBLIOGRAPHY - YEAR OF LAST REVISION	GEOGRAPHIC INFORMATION SYSTEM	HISTORY OF SCIENTIFIC STUDY	BIOGEOCHEMICAL CYCLES	COMPARATIVE ECOLOGICAL RESEARCH	ECOLOGICAL SUCCESSION	ECOSYSTEM MODELING	FIRE HISTORY/EFFECTS	HYDROLOGICAL CYCLE	SEDIMENTATION	PESTS AND DISEASES	RARE/ENDANGERED SPECIES	WILDLIFE POPULATION DYNAMICS	ACIDIC DEPOSITION	ATMOSPHERIC POLLUTANTS	PESTICIDES	WATER POLLUTANTS
<b>NETHERLANDS</b>																			
WADDENSEA AREA	15	X				X	X	X	X		X				X	X	X	X	X
<b>NORWAY</b>																			
<b>NORTH-EAST SVALBARD</b>																			
<b>POLAND</b>																			
BABIA GORA	8	X			X	X	X	X			X	X	X		X	X	X		X
BIALOWIEZA	20	X			162	X	X	X	X		X	X	X	X	X	X	X		X
EASTERN BESKID	X	X		X		X	X	X			X	X		X	X	X	X		X
KARKONOSZE	X	X										X		X	X	X			
LUKAJNO LAKE	X				X			X						X	X			X	X
SLOWINSKI		X			X	X	X	X				X	X	X	X	X	X		X
TATRA MOUNTAINS	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X		X
<b>PORTUGAL</b>																			
PAUL DO BOQUILOBO															X			X	X
<b>ROMANIA</b>																			
DANUBE DELTA	X	X			X			X		X	X		X	X	X	X	X		X
PIETROSUL MARE	X				50	X	X				X		X	X	X				
RETEZAT	X				50	X	X	X			X		X	X	X				

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

HUMAN SYSTEMS	ARCHAEOLOGY							
	CULTURAL ANTHROPOLOGY							
	DEMOGRAPHY/SETTLEMENT PATTERNS							
	ETHNOBIOLOGY							
	LAND TENURE/USE/MANAGEMENT							
	RESOURCE ECONOMICS							
	TRADITIONAL LAND USE SYSTEMS							
	MANAGEMENT PRACTICES							
	AGRICULTURAL							
	APPROPRIATE RURAL TECHNOLOGY							
ECOSYSTEM RESTORATION								
GENETIC RESOURCE MANAGEMENT								
MINING RECLAMATION								
RANGELAND MANAGEMENT								
RECREATION/TOURISM								
RESOURCE PRODUCTION TECHNOLOGIES								
SOIL CONSERVATION								
WATERSHED MANAGEMENT								

## NETHERLANDS

WADDENSEA AREA										X			X	X			
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## NORWAY

NORTH-EAST SVALBARD																	
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## POLAND

BABIA GORA											X			X		X	
BIALOWIEZA										X	X	X		X	X	X	
EASTERN BESKID				X			X	X		X	X			X	X	X	
KARKONOSZE					X					X			X	X	X		
LUKAJNO LAKE													X				
SLOWINSKI					X			X	X	X	X		X	X			
TATRA MOUNTAINS				X	X		X	X	X	X	X	X	X	X	X	X	X

## PORTUGAL

PAUL DO BOQUILOBO							X	X	X	X			X				
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## ROMANIA

DANUBE DELTA		X		X	X			X	X			X	X		X	X	X
PIETROSUL MARE		X		X			X	X	X	X	X	X	X	X		X	X
RETEZAT		X		X			X	X	X	X	X	X	X	X		X	X



## SITE SUPPORT

X = EXISTING PROGRAM \* = PRIORITY AREA

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

	INFRASTRUCTURE						MONITORING AND RESEARCH FACILITIES						NUMBER OF TYPES OF FACILITIES (MAXIMUM = 71)
	CONFERENCE FACILITIES	CURATORIAL FACILITY	LABORATORY	LIBRARY	LODGING FOR SCIENTISTS	ROAD ACCESS	AIR POLLUTION STATION	HYDROLOGICAL STATION	PERMANENT PLOTS: LAKE/STREAM	PERMANENT PLOTS: VEGETATION	WATERSHED RESEARCH SITE	WEATHER STATION	PERMANENT RESEARCH STAFF

## NETHERLANDS

WADDENSEA AREA	X	X	X	X	X	X	X	X	X	10	50	X	20	42
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## NORWAY

NORTH-EAST SVALBARD														0
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## POLAND

BABIA GORA		X	X	X	3	X	4			500		X	2	42
BIALOWIEZA	X	X	X	X	20	X	X			30		X	3	47
EASTERN BESKID	X	X	X	X	10	X				X		X		45
KARKONOSZE	X		X	X	7	X	X	X				X		36
LUKAJNO LAKE			X	X										21
SLOWINSKI	X	X	X	X	20	X	X					X	X	36
TATRA MOUNTAINS	X	X	X	X	5	X		X	X	X	X	X	X	57

## PORTUGAL

PAUL DO BOQUILOBO			X		10			X				X		16
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## ROMANIA

DANUBE DELTA	X		X	X	25	X		X				X		46
PIETROSUL MARE	X					X	X	50			X	X		42
RETEZAT	X		X		X	X	X	50			X	X		46

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS				
INVERTEBRATES							MAMMALS							GEOLOGICAL				
BIRDS							CLIMATE							LAND USE				
NONVASCULAR PLANTS							FRESHWATER ECOSYSTEMS							REGIONAL LAND TENURE				
VASCULAR PLANTS							GROUNDWATER HYDROLOGY							SOILS				
VERTEBRATES OTHER THAN MAMMALS							MARINE ECOSYSTEMS							TOPOGRAPHIC				
BIOLOGICAL SURVEY AND COLLECTIONS							PALEOECOLOGY							VEGETATION				
							PRECIPITATION CHEMISTRY											
							SURFACE HYDROLOGY											
							VEGETATION DATA											
							WATER QUALITY											

## RUSSIAN FEDERATION

ASTRAKHANSKIY	65	65		65	65	X	4	47	41	12				41	65		X			X	X	X
KAVKAZSKIY	62	62		62	62	X	5	60	10	60			5	60	62	15	X	X	X	X	X	X
KRONOTSKIY	7	10		7	10	X		18						X	20		X	X	X	X	X	X
LAKE BAIKAL: BAIKALSKIY	7	10		7	10	X		18						X	20		X			X	X	X
LAKE BAIKAL: BARGUZINSKIY		13		3	13	X	2	14						X						X		
LAPLANDSKIY		50			50	X	10													X		
OKA RIVER VALLEY	15	40		X	40	X			50	X				53	50	30						X
PECHORO-ILYCHSKIY	X	20		X	20	X		X	X					X	X	X	X	X				X
SAYANO-SHUSHENSKIY	10	10		7	10	X		10	10					10			X			X	X	X
SIKHOTE-ALINSKIY	50	50		50	50	X	3	40	15					10	50		X			X	X	X
SOKHONDINSKIY		X		X	X	X		X		X				X	X	X						X
TSENTRAL'NO-CHERNOZEMNY	40	50		20	50	X		40						30	35			X		X	X	X
TSENTRAL'NO-LESNOY	50	50		50	50	X	2	18		50				50	50	4	X	X		X	X	X
TSENTRAL'NOSIBIRSKIY		2		2	2	X									2							X
VORONEZHSKIY	10	40		5	50	40		54														

## SLOVAKIA

EAST CARPATHIANS	X	X		X	X	X		X	X					X		X	X	X	X	X	X	X
POLANA	X	X		X	X	X		X					X			X	X			X	X	X
SLOVENSKY KRAS	10	35	X	35	55	35		50	X	20		X	30	18		28	X	X	X	X	X	X
TATRY	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X

## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS	ECOSYSTEM CYCLES AND PROCESSES							SPECIES POPULATIONS		POLLUTION									
	AERIAL PHOTOGRAPHS	BIBLIOGRAPHY	BIBLIOGRAPHY - NUMBER OF REFERENCES	BIBLIOGRAPHY - YEAR OF LAST REVISION	GEOGRAPHIC INFORMATION SYSTEM	HISTORY OF SCIENTIFIC STUDY	BIOGEOCHEMICAL CYCLES	COMPARATIVE ECOLOGICAL RESEARCH	ECOLOGICAL SUCCESSION	ECOSYSTEM MODELING	FIRE HISTORY/EFFECTS	HYDROLOGICAL CYCLE	SEDIMENTATION	PESTS AND DISEASES	RARE/ENDANGERED SPECIES	WILDLIFE POPULATION DYNAMICS	ACIDIC DEPOSITION	ATMOSPHERIC POLLUTANTS	PESTICIDES

## RUSSIAN FEDERATION

ASTRAKHANSKIY	X	X				X	X			X				X	X		X	X	X
KAVKAZSKIY	5	62				X	X		X		X			X	X		X		X
KRONOTSKIY	12	X				X	X		X		X			X	X				
LAKE BAIKAL: BAIKALSKIY	12	X				X	X		X		X			X	X				
LAKE BAIKAL: BARGUZINSKIY		X				X	X		X					X	X		X		X
LAPLANDSKIY						X	X								X		X		X
OKA RIVER VALLEY	50	X				X	X			X		X		X	X				X
PECHORO-ILYCHSKIY	10	X				X	X					X		X	X				X
SAYANO-SHUSHENSKIY	X					X	X		X	X		X		X	X				X
SIKHOTE-ALINSKIY						X	X		X	X		X		X	X				X
SOKHONDINSKIY		X				X	X					X		X	X				X
TSENTRAL'NO-CHERNOZEMNY	40	X				X	X			X		X		X	X				X
TSENTRAL'NO-LESNOY	50	X				X	X					X		X	X		X		
TSENTRAL'NOSIBIRSKIY						X	X			X				X	X				X
VORONEZHSKIY		X				X	X			X		X		X	X				X

## SLOVAKIA

EAST CARPATHIANS	X	X	100	1992										X			X		
POLANA	X	X	120	1992										X			X		
SLOVENSKY KRAS	30	X	250	1992										X			X		X
TATRY	X	X	850	1992	X									X			X		X

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

HUMAN SYSTEMS							MANAGEMENT PRACTICES									
ARCHAEOLOGY							AGRICULTURAL	APPROPRIATE RURAL TECHNOLOGY	ECOSYSTEM RESTORATION	GENETIC RESOURCE MANAGEMENT	MINING RECLAMATION	RANGELAND MANAGEMENT	RECREATION/TOURISM	RESOURCE PRODUCTION TECHNOLOGIES	SOIL CONSERVATION	WATERSHED MANAGEMENT
CULTURAL ANTHROPOLOGY																
DEMOGRAPHY/SETTLEMENT PATTERNS																
ETHNOBIOLOGY																
LAND TENURE/USE/MANAGEMENT																
RESOURCE ECONOMICS																
TRADITIONAL LAND USE SYSTEMS																

## RUSSIAN FEDERATION

ASTRAKHANSKIY						X										
KAVKAZSKIY			X			X	X		X	X	X	X	X		X	
KRONOTSKIY						X			X						X	
LAKE BAIKAL: BAIKALSKIY	X					X			X	X			X		X	
LAKE BAIKAL: BARGUZINSKIY									X	X			X			
LAPLANDSKIY											X					
OKA RIVER VALLEY						X			X	X						X
PECHORO-ILYCHSKIY											X					
SAYANO-SHUSHENSKIY						X									X	
SIKHOTE-ALINSKIY						X					X				X	
SOKHONDINSKIY						X										
TSENTRAL'NO-CHERNOZEMNY						X										
TSENTRAL'NO-LESNOY						X				X	X	X			X	
TSENTRAL'NOSIBIRSKIY										X	X	X			X	
VORONEZHSKIY															X	

## SLOVAKIA

EAST CARPATHIANS	X		X			X			X					X	X	X
POLANA						X			X	X		X		X	X	X
SLOVENSKY KRAS	X					X			X	X			X		X	X
TATRY						X		X	X	X	X		X	X	X	X

## SITE SUPPORT

X = EXISTING PROGRAM    \* = PRIORITY AREA

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

INFRASTRUCTURE						MONITORING AND RESEARCH FACILITIES					
CONFERENCE FACILITIES						AIR POLLUTION STATION					
CURATORIAL FACILITY						HYDROLOGICAL STATION					
LABORATORY						PERMANENT PLOTS: LAKE/STREAM					
LIBRARY						PERMANENT PLOTS: VEGETATION					
LODGING FOR SCIENTISTS						WATERSHED RESEARCH SITE					
ROAD ACCESS						WEATHER STATION					
						PERMANENT RESEARCH STAFF					

NUMBER OF TYPES OF RECORDS, PROGRAMS, FACILITIES (MAXIMUM = 71)

## RUSSIAN FEDERATION

ASTRAKHANSKIY	X	X	X	X	15	X	X	X	3		X	17	41
KAVKAZSKIY	X	X	X	X	30		X	X		3		42	50
KRONOTSKIY		X	X				X	X	2			10	34
LAKE BAIKAL: BAIKALSKIY	X	X	X	X	X	X	X		2	X	X	8	44
LAKE BAIKAL: BARGUZINSKIY	X	X	X	X	5	X			4	X		13	30
LAPLANDSKIY		X	X							7		90	14
OKA RIVER VALLEY	X	X	X	X	30	X	X	X	X		X	22	36
PECHORO-ILYCHSKIY	X	X	X	X	2	X	X	X	2	21	X	75	37
SAYANO-SHUSHENSKIY	X	X	X			X						16	28
SIKHOTE-ALINSKIY	X	X	X	X	3	X	X	X	12		X	14	41
SOKHONDINSKIY	X	X	X	X	10	X					X	6	27
TSENTRAL'NO-CHERNOZEMNY	X	X	X	X	20	X	X			3	X	30	36
TSENTRAL'NO-LESNOY	X	X	X	X	12		X	X		2	X	20	41
TSENTRAL'NOSIBIRSKIY		X		X		X				20		9	17
VORONEZHSKIY	X	X	X	X	30	X					X	70	24

## SLOVAKIA

EAST CARPATHIANS				X	2	X		X		X	X		34
POLANA				X	8				X		X	40	38
SLOVENSKY KRAS	X			X	10	X			X		X	4	47
TATRY	X			X		X	X	X	X	X			58

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS					
INVERTEBRATES							AIR QUALITY							GEOLOGICAL					
MAMMALS							CLIMATE							LAND USE					
BIRDS							FRESHWATER ECOSYSTEMS							REGIONAL LAND TENURE					
NONVASCULAR PLANTS							GROUNDWATER HYDROLOGY							SOILS					
VASCULAR PLANTS							MARINE ECOSYSTEMS							TOPOGRAPHIC					
VERTEBRATES OTHER THAN MAMMALS							PALEOECOLOGY							VEGETATION					
BIOLOGICAL SURVEY AND COLLECTIONS							PRECIPITATION CHEMISTRY							VEGETATION DATA					
							SURFACE HYDROLOGY							WATER QUALITY					

## SPAIN

ALTO MANZANARES	6	10	10	X	20	10	2	X	*2	X				X	6	X	X	X	X	X	X	X
CANAL Y LOS TILES								2	X	X					X						X	X
DONANA	X	X	X			X	X	X	X	X				X	X	X	X	X	X	X	X	X
GRAZALEMA	X	X		X	X	X	X	X	X					X				X	X		X	X
MANCHA HUMEDA																						
MARISMAS DEL ODIEL	X	X		X	X	X	X	41	X	X	X		X	X	X	X	X	X	X		X	X
MONTSENY	5	10		25	25	10	X	58							25	5	X	X		X	X	X
ORDESA-VINAMALA						X																
SIERRA NEVADA	X	X	X	X	X		X	X	X			X		39	X	X	X	X	X	X	X	X
SIERRAS DE CAZORLA, SEGURA Y LAS VILLAS	X	X		X	X			X	X	X				X	X	X	X	X	X		X	X
URDAIBAI	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## SWEDEN

LAKE TORNE AREA	X	X		X	X	X	X	X	80	X	X		X	X	X	X	X	X	X	X	X	X
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## 237 SWITZERLAND

SUISSE	70	70		70	70	70	X	X	70					X	X		X				X	X
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## TURKMENISTAN

REPETEK		X	X				X	4	63		X		X	10	X		X	X	X	X	X	4
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## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS						ECOSYSTEM CYCLES AND PROCESSES						SPECIES POPULATIONS		POLLUTION			
AERIAL PHOTOGRAPHS						BIBLIOGRAPHY						PESTS AND DISEASES		ACIDIC DEPOSITION			
BIBLIOGRAPHY - NUMBER OF REFERENCES						ECOSYSTEM MODELING						RARE/ENDANGERED SPECIES		ATMOSPHERIC POLLUTANTS			
BIBLIOGRAPHY - YEAR OF LAST REVISION						ECOLOGICAL SUCCESSION						WILDLIFE POPULATION DYNAMICS		PESTICIDES			
GEOGRAPHIC INFORMATION SYSTEM						COMPARATIVE ECOLOGICAL RESEARCH								WATER POLLUTANTS			
HISTORY OF SCIENTIFIC STUDY						BIOGEOCHEMICAL CYCLES											

## SPAIN

ALTO MANZANARES	X	X	450	1992	X	X	X	*	*	X	X		X	X	X				X	
CANAL Y LOS TILES		X			X	X	X		X	*	X		X	*	*		X	X	X	
DONANA		X	1500	1991		X	X	X	X		X		X	*	*		X	X	X	
GRAZALEMA	X	X			X					X				X	X					
MANCHA HUMEDA																				
MARISMAS DEL ODIEL	11	X			X					X				X			X		X	
MONTSENY	X	X			X	X	X	X	X	X			X	X	X		X			
ORDESA-VINAMALA									X		X			X	X					
SIERRA NEVADA	X	X	540	1992	X		X	X	X	X	X	X	*	X	X		X			*
SIERRAS DE CAZORLA, SEGURA Y LAS VILLAS	X	X		1992						X			X	*	*					
URDAIBAI	6	X	2000	1993	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## SWEDEN

LAKE TORNE AREA	X	X	2000	1986	X	X	X	X	X			X	X	X	X	X	X	X	X	X
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## SWITZERLAND

SUISSE	2	X			X		X	X			X	X		X	X	X				
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## TURKMENISTAN

REPETEK	2	X			X	X	X				X				X		X			
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## RESEARCH TOPICS

X = EXISTING PROGRAM    P = PRIORITY AREA

HUMAN SYSTEMS							MANAGEMENT PRACTICES									
ARCHAEOLOGY							AGRICULTURAL	APPROPRIATE RURAL TECHNOLOGY	ECOSYSTEM RESTORATION	GENETIC RESOURCE MANAGEMENT	MINING RECLAMATION	RANGELAND MANAGEMENT	RECREATION/TOURISM	RESOURCE PRODUCTION TECHNOLOGIES	SOIL CONSERVATION	WATERSHED MANAGEMENT
CULTURAL ANTHROPOLOGY							TRADITIONAL LAND USE SYSTEMS	RESOURCE ECONOMICS	LAND TENURE/USE/MANAGEMENT	ETHNOBIOLOGY	DEMOGRAPHY/SETTLEMENT PATTERNS					

## SPAIN

ALTO MANZANARES	X		X	X		P	P	X	X		X	X	X	X	X	X
CANAL Y LOS TILES																
DONANA	X					X			X	X		X	X		X	
GRAZALEMA	X		X						X	X			X		X	
MANCHA HUMEDA																
MARISMAS DEL ODIEL									X	X	X		X		X	
MONTSENY	X									X	X		X			
ORDESA-VINAMALA	X								X	X			X			
SIERRA NEVADA	X	X		X	X	X	X		X	P	X	X	P	X	X	X
SIERRAS DE CAZORLA, SEGURA Y LAS VILLAS	X				X		X		P	P			P		X	
URDAIBAI	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X

## SWEDEN

LAKE TORNE AREA						X							X			
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## 201 SWITZERLAND

SUISSE															X	
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## TURKMENISTAN

REPETEK			X		X	X	X		X				X	X	X	
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## SITE SUPPORT

X = EXISTING PROGRAM \* = PRIORITY AREA

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

INFRASTRUCTURE						MONITORING AND RESEARCH FACILITIES						PERMANENT RESEARCH STAFF	NUMBER OF TYPES OF RECORDS, PROGRAMS, FACILITIES (MAXIMUM = 71)
CONFERENCE FACILITIES	CURATORIAL FACILITY	LABORATORY	LIBRARY	LODGING FOR SCIENTISTS	ROAD ACCESS	AIR POLLUTION STATION	HYDROLOGICAL STATION	PERMANENT PLOTS: LAKE/STREAM	PERMANENT PLOTS: VEGETATION	WATERSHED RESEARCH SITE	WEATHER STATION		

NUMBER OF TYPES OF RECORDS, PROGRAMS, FACILITIES (MAXIMUM = 71)

## SPAIN

ALTO MANZANARES	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5	57
CANAL Y LOS TILES														X	5	5
DONANA	X	X	X	X	2	X		X	X				X	X	15	47
GRAZALEMA	X	X	X	X	52	X		X					X		6	36
MANCHA HUMEDA	X		X	X		X		X						X	4	7
MARISMAS DEL ODIEL		X				X					2				15	37
MONTSENY			X	X	8	X			2					X	2	33
ORDESA-VINAMALA			X	X		X		X						X	12	15
SIERRA NEVADA		X		X		X		X						X		53
SIERRAS DE CAZORLA, SEGURA Y LAS VILLAS	X	X	X		4	X		X						X		38
URDAIBAI	X	X	X	X	8	X							X	X		63

## SWEDEN

LAKE TORNE AREA	X	X	X	X	60	X	X	X	X	X	X	X	X	X	5	48
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## SWITZERLAND

SUISSE	X		X	X	10						X			X		30
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## TURKMENISTAN

REPETEK	X	X	X	X	200	X	X	X						X	23	42
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## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY							ECOLOGICAL MONITORING							RESOURCE MAPS								
INVERTEBRATES	MAMMALS	BIRDS	NONVASCULAR PLANTS	VASCULAR PLANTS	VERTEBRATES OTHER THAN MAMMALS	BIOLOGICAL SURVEY AND COLLECTIONS	AIR QUALITY	CLIMATE	FRESHWATER ECOSYSTEMS	GROUNDWATER HYDROLOGY	MARINE ECOSYSTEMS	PALEOECOLOGY	PRECIPITATION CHEMISTRY	SURFACE HYDROLOGY	VEGETATION DATA	WATER QUALITY	GEOLOGICAL	LAND USE	REGIONAL LAND TENURE	SOILS	TOPOGRAPHIC	VEGETATION

## UKRAINE

ASKANIYA-NOVA	30	20		30	30	20	X																
CARPATHIAN	X	X		X	X	X																	
CHERNOMORSKIY	34	46		8	59	36	X											X					

## UNITED KINGDOM

BEINN EIGHE	30	20		30	30	20	X																	
BRAUNTON BURROWS	20	20		20	20		X			20					30									
CAERLAVEROCK		27																						
CAIRNSMORE OF FLEET, MERRICK-KELLS AND SILVER-FLOWE	X	X					X																	
CLAISH MOSS	9	9		9	9	9	X																	
DYFI	10	20		20	18	X								2	7	10								
ISLE OF RUM	10	30		25	30	X		2	2					20	20		X			X	X	X	X	X
LOCH DRUIDIBEG	10	10		10	10	X				10					20		X							
MOOR HOUSE-UPPER																								
TEESDALE	24	24		30	30	24	X		18	18					X		X			X	X	X	X	X
NORTH NORFOLK COAST																								
ST. KILDA		25		25	25	X			25						25		X			X	X	X	X	X
TAYNISH						X																		

## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS						ECOSYSTEM CYCLES AND PROCESSES							SPECIES POPULATIONS		POLLUTION			
AERIAL PHOTOGRAPHS						BIOGEOCHEMICAL CYCLES							PESTS AND DISEASES		ACIDIC DEPOSITION			
BIBLIOGRAPHY						COMPARATIVE ECOLOGICAL RESEARCH							RARE/ENDANGERED SPECIES		ATMOSPHERIC POLLUTANTS			
BIBLIOGRAPHY - NUMBER OF REFERENCES						ECOLOGICAL SUCCESSION							WILDLIFE POPULATION DYNAMICS		PESTICIDES			
BIBLIOGRAPHY - YEAR OF LAST REVISION						ECOSYSTEM MODELING									WATER POLLUTANTS			
GEOGRAPHIC INFORMATION SYSTEM						FIRE HISTORY/EFFECTS												
HISTORY OF SCIENTIFIC STUDY						HYDROLOGICAL CYCLE												

## UKRAINE

ASKANIYA-NOVA						143	X	X	X	X	X			X	X	X	X			X
CARPATHIAN	X	X				X														
CHERNOMORSKIY	X					X	X	X	X	X	X		X	X	X	X				X

## UNITED KINGDOM

BEINN EIGHE	30																			
BRAUNTON BURROWS	40	X						X			X									
CAERLAVEROCK	X																			
CAIRNSMORE OF FLEET, MERRICK-KELLS AND SILVER-FLOWE	X							X			X						X			
CLAISH MOSS	40	X				X														
DYFI	20	X									X						X	X		
ISLE OF RUM	40	X				X		X												
LOCH DRUIDIBEG	10	X																		
MOOR HOUSE-UPPER TEESDALE	9							X									X			
NORTH NORFOLK COAST																				
ST. KILDA	10	X					X	X												X
TAYNISH						X							X							

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

HUMAN SYSTEMS								MANAGEMENT PRACTICES								
ARCHAEOLOGY	CULTURAL ANTHROPOLOGY	DEMOGRAPHY/SETTLEMENT PATTERNS	ETHNOBIOLOGY	LAND TENURE/USE/MANAGEMENT	RESOURCE ECONOMICS	TRADITIONAL LAND USE SYSTEMS	AGRICULTURAL	APPROPRIATE RURAL TECHNOLOGY	ECOSYSTEM RESTORATION	GENETIC RESOURCE MANAGEMENT	MINING RECLAMATION	RANGELAND MANAGEMENT	RECREATION/TOURISM	RESOURCE PRODUCTION TECHNOLOGIES	SOIL CONSERVATION	WATERSHED MANAGEMENT

## UKRAINE

ASKANIYA-NOVA	X					X	X	X	X	X		X	X		X	
CARPATHIAN									X			X		X		
CERNOMORSKIY	X					X	X	X	X	X		X			X	

## UNITED KINGDOM

BEINN EIGHE						X			X	X						
BRAUNTON BURROWS								X					X			
CAERLAVEROCK																
CAIRNSMORE OF FLEET, MERRICK-KELLS AND SILVER-FLOWE							X									
CLAISH MOSS													X			
DYFI						X		X	X		X		X			
ISLE OF RUM								X								
LOCH DRUIDBEG																
MOOR HOUSE-UPPER TEESDALE											X					
NORTH NORFOLK COAST																
ST. KILDA							X			X		X				
TAYNISH													X			

## SITE SUPPORT

X = EXISTING PROGRAM    = PRIORITY AREA

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

PERMANENT RESEARCH STAFF	MONITORING AND RESEARCH FACILITIES							INFRASTRUCTURE						
	CONFERENCE FACILITIES	CURATORIAL FACILITY	LABORATORY	LIBRARY	LODGING FOR SCIENTISTS	ROAD ACCESS	AIR POLLUTION STATION	HYDROLOGICAL STATION	PERMANENT PLOTS: LAKE/STREAM	PERMANENT PLOTS: VEGETATION	WATERSHED RESEARCH SITE	WEATHER STATION		

NUMBER OF TYPES OF FACILITIES (MAXIMUM = 71)

## UKRAINE

ASKANIYA-NOVA	X	X	X	X	10	X				X	X	X	22
CARPATHIAN	X	X	X	X	X					X	X	X	29
CHERNOMORSKIY	X	X	X	X	92	X			8	X			43

40  
29  
43

## UNITED KINGDOM

BEINN EIGHE	X	X	X	X	14	X	X					X	X
BRAUNTON BURROWS													17
CAERLAVEROCK						X							5
CAIRNSMORE OF FLEET, MERRICK-KELLS AND SILVER-FLOWE													14
CLAISH MOSS			X		2	X							12
DYFI								X				X	25
ISLE OF RUM	X	X	X	X	100	X						X	27
LOCH DRUIDIBEG						X							15
MOOR HOUSE-UPPER TEESDALE			X			X	X			X		X	25
NORTH NORFOLK COAST													0
ST. KILDA					12							X	22
TAYNISH					X	X							5

26  
17  
5  
14  
12  
25  
27  
15  
25  
0  
22  
5

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY								ECOLOGICAL MONITORING								RESOURCE MAPS																													
INVERTEBRATES		MAMMALS		BIRDS		NONVASCULAR PLANTS		VASCULAR PLANTS		VERTEBRATES OTHER THAN MAMMALS		BIOLOGICAL SURVEY AND COLLECTIONS		AIR QUALITY		CLIMATE		FRESHWATER ECOSYSTEMS		GROUNDWATER HYDROLOGY		MARINE ECOSYSTEMS		PALEOECOLOGY		PRECIPITATION CHEMISTRY		SURFACE HYDROLOGY		VEGETATION DATA		WATER QUALITY		GEOLOGICAL		LAND USE		REGIONAL LAND TENURE		SOILS		TOPOGRAPHIC		VEGETATION	

## UNITED STATES

ALEUTIAN ISLANDS		30		20	30	X		25	20	25	20			25	20			10				X	X
BEAVER CREEK								20		15				15						X		X	X
BIG BEND	X	X	X	X	X	X	5	40	X	20		X	6	20	X	20				X	X	X	X
BIG THICKET	14	14	14	14	14	X	4	X	14					14	14	14		X	X		X	X	X
CALIFORNIA COAST RANGES	X	X	X	X	X	X	X	X	X	X	X			X	X	X		X	X	X	X	X	X
CAROLINIAN-SOUTH ATLANTIC	X	X	X	X	X	X	X	X	52	X	X		X	X	X	X		X	X		X	X	X
CASCADE HEAD	3	3	2	10		2		50	2		10	X			40			50	X		X	X	X
CENTRAL CALIFORNIA COAST	X	2	X	X	2	*	X	X	X	X	X		7	X	X	X		X	X		5	X	X
CENTRAL GULF COASTAL PLAIN	X	X	X		X	X		85	34	39	39	X		70	X	9		X	X				X
CENTRAL PLAINS	8	5		50	5	X	6	50					6	3	50			X	50		X	X	
CHAMPLAIN-ADIRONDACK	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	X	100	X	X	X
CHANNEL ISLANDS	X	X	X	X	X	X	12	12			X			6	X	12		X	X		X	X	X
CORAM	4	5	4	3	21	5	1.5	36					1.5	4	21			1.5	1.5	59	1.5	1.5	1.5
DENALI	30	90	90	70	80	90	12	65	4			30	12	X	30	X	X	X	60	90	X	X	X
DESERT						X		X													X	X	*
EVERGLADES		30	X		10	30	5	40	25	40	25		5	40	30	20	X				X	X	X
FRASER		5					8	40		5				40	40	X	X				X	X	X
GLACIER	X	X	21	X	X	X	10	X	X			X	X	X		8		X		24			X



## RESEARCH TOPICS

X = EXISTING PROGRAM    # = NUMBER OF YEARS OF RECORDS    🍏 = PRIORITY AREA

HISTORICAL RECORDS	AERIAL PHOTOGRAPHS	ECOSYSTEM CYCLES AND PROCESSES	SPECIES POPULATIONS	POLLUTION	WATER POLLUTANTS						
	BIBLIOGRAPHY				BIOGEOCHEMICAL CYCLES	COMPARATIVE ECOLOGICAL RESEARCH	ECOLOGICAL SUCCESSION	ECOSYSTEM MODELING	FIRE HISTORY/EFFECTS	HYDROLOGICAL CYCLE	SEDIMENTATION
	BIBLIOGRAPHY - NUMBER OF REFERENCES				REVISION	GEOGRAPHIC INFORMATION SYSTEM	HISTORY OF SCIENTIFIC STUDY				
	BIBLIOGRAPHY - YEAR OF LAST REVISION										

## UNITED STATES

30									X
2	X	675	1985	X	X				X
61	X	123	1987	14	X				X
20	X				X	X			X
20	X	2000	1992	X	X				X
40	50	200	1991		X				X
50	X				X				X
3	X	3000	1992	X	X				X
50	X	200	1983	X	X				X
X	X			X	X				X
20	X			X	X				X
36	X	100	1992	5	1.5				
30	X	600	1992		X				X
	X				X				X
40	X			4					
4									X
X	5	2500	1991	X	X				X

## RESEARCH TOPICS

X = EXISTING PROGRAM    ♣ = PRIORITY AREA

HUMAN SYSTEMS	ARCHAEOLOGY									
	CULTURAL ANTHROPOLOGY									
	DEMOGRAPHY/SETTLEMENT PATTERNS									
	ETHNOBIOLOGY									
	LAND TENURE/USE/MANAGEMENT									
	RESOURCE ECONOMICS									
	TRADITIONAL LAND USE SYSTEMS									
	MANAGEMENT PRACTICES									
	AGRICULTURAL									
	APPROPRIATE RURAL TECHNOLOGY									
ECOSYSTEM RESTORATION										
GENETIC RESOURCE MANAGEMENT										
MINING RECLAMATION										
RANGELAND MANAGEMENT										
RECREATION/TOURISM										
RESOURCE PRODUCTION TECHNOLOGIES										
SOIL CONSERVATION										
WATERSHED MANAGEMENT										

## UNITED STATES

ALEUTIAN ISLANDS		X					X			X		X					
BEAVER CREEK																	
BIG BEND	X	X	X	X						X		X		X		X	
BIG THICKET										X		X		X			
CALIFORNIA COAST RANGES		X					X	X		♣	X			X		X	X
CAROLINIAN-SOUTH ATLANTIC		X					X	X		X	X			X		X	
CASCADE HEAD	X	X	X					X		10		X		X	3		
CENTRAL CALIFORNIA COAST		X					♣	X	X	♣	X		X	X		X	X
CENTRAL GULF COASTAL PLAIN	X	X	X				X		X	X				X	X	X	♣
CENTRAL PLAINS	X		X					X				X	♣			X	X
CHAMPLAIN-ADIRONDACK	50	X	50	X	50	25	X	X	X	X	X	X		X	25	X	X
CHANNEL ISLANDS		X		X			X	X	X	X			X	X		X	X
CORAM										4					41		
DENALI	30	X	15	X	25	20	X				X	X		X	25		
DESERT													X				
EVERGLADES							X			X	X	X	X	X		X	X
FRASER														X			X
GLACIER	X						X			X	X	X		X			



**X = EXISTING PROGRAM    🍏 = PRIORITY AREA**

**X = EXISTING PROGRAM** 

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

MONITORING AND RESEARCH FACILITIES	PERMANENT RESEARCH STAFF
	WEATHER STATION
	WATERSHED RESEARCH SITE
	VEGETATION
	PERMANENT PLOTS:
	LAKE/STREAM
	PERMANENT PLOTS:
	HYDROLOGICAL STATION
	AIR POLLUTION STATION
	ROAD ACCESS
INFRASTRUCTURE	LODGING FOR SCIENTISTS
	LIBRARY
	LABORATORY
	CURATORIAL FACILITY
	CONFERENCE FACILITIES

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

**UNITED STATES**

[illegible]

## BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY								ECOLOGICAL MONITORING								RESOURCE MAPS				
INVERTEBRATES								MAMMALS								GEOLOGICAL				
BIRDS								MARINE ECOSYSTEMS								LAND USE				
NONVASCULAR PLANTS								PALEOECOLOGY								REGIONAL LAND TENURE				
VASCULAR PLANTS								PRECIPITATION CHEMISTRY								SOILS				
VERTEBRATES OTHER THAN MAMMALS								GROUNDWATER HYDROLOGY								TOPOGRAPHIC				
BIOLOGICAL SURVEY AND COLLECTIONS								FRESHWATER ECOSYSTEMS								VEGETATION				
								CLIMATE								WATER QUALITY				
								AIR QUALITY												
								SURFACE HYDROLOGY												
								VEGETATION DATA												

## U.S.A. (CONT.)

GLACIER BAY - ADMIRALTY ISLAND	10	15			10	20	10	X		20	3			3	70		X	20				
GUANICA					10	10		X							20							X
H.J. ANDREWS	15	15			15	20	15	X						20	35	20	25	X	40		X	X
HAWAIIAN ISLANDS	4	10			10.2	20	X	15							10			X			X	X
HUBBARD BROOK	X	X	25		X	X	X	X		12			X	28	35	26	28	X		X	X	X
ISLE ROYALE		75	10		3	75		X					X	15	10	75	10	X	45	19	2	X
JORNADA	X	X	2		X	X	X	X							15	71	X	X		X	X	X
KONZA PRAIRIE	X	5	X		X	X	X	X						3	X	X	X	X	X		X	X
LAND BETWEEN THE LAKES	5	25	26		5	25	25	25		5				25	10	25	25	40	25	29	10	36
LUQUILLO					X	60		X		X				8	12	40	5	X	30		X	25
MAMMOTH CAVE AREA	10	15	24		10	15	X	X		25			10	8	3	3	20	20	3	51	X	30
MOJAVE AND COLORADO DESERTS	X	422	X		X	X	X	X		X	X			X	X	X	X	X	X	60	X	X
NEW JERSEY PINELANDS	X	X	X		X	X	X	X		X	X			X	X		X	X	X	12	X	X
NIWOT RIDGE	5	9			30	30	X	X		10				10	10	15	10	X	X		X	X
NOATAK		13	X		10	10	X	11								X		X	X	X	X	3
OLYMPIC		X	30			X	X	X		X	X			10	X	X	X	X		54		X
ORGAN PIPE CACTUS	50	50	50			50	50	X		53				11	71	52	10	X	X	X	X	X
ROCKY MOUNTAIN	7	60	50		2	60	60	10		15			2	10	10	60	10	X	X	X	X	X

## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS ♣ = PRIORITY AREA

HISTORICAL RECORDS	ECOSYSTEM CYCLES AND PROCESSES						SPECIES POPULATIONS		POLLUTION											
							BIOGEOCHEMICAL CYCLES	COMPARATIVE ECOLOGICAL RESEARCH	ECOLOGICAL SUCCESSION	ECOSYSTEM MODELING	FIRE HISTORY/EFFECTS	HYDROLOGICAL CYCLE	SEDIMENTATION	PESTS AND DISEASES	RARE/ENDANGERED SPECIES	WILDLIFE POPULATION DYNAMICS	ACIDIC DEPOSITION	ATMOSPHERIC POLLUTANTS	PESTICIDES	WATER POLLUTANTS
AERIAL PHOTOGRAPHS	BIBLIOGRAPHY	BIBLIOGRAPHY - NUMBER OF REFERENCES	BIBLIOGRAPHY - YEAR OF LAST REVISION	GEOGRAPHIC INFORMATION	SYSTEM	HISTORY OF SCIENTIFIC STUDY														

## U.S.A. (CONT.)

GLACIER BAY - ADMIRALTY ISLAND	60							X				X		X	X	X			
GUANICA	40	X						X	X	X	X	X		X	X				X
H.J. ANDREWS	35	X						X	X	X	X	X		X	X				
HAWAIIAN ISLANDS	52	X						15	15	10		X	10	♣10	X				X
HUBBARD BROOK	X	X	1148	1991				X	X	X	X	X		X	X	X	X		
ISLE ROYALE	55	X	1060	1992				X	X	X				X	X	10	X		
JORNADA	3	X	400	1990				X	X	X	X				X				
KONZA PRAIRIE	30	X	375	1993				X	X	X	X	X		X	X	X	X		
LAND BETWEEN THE LAKES	60	27	402	1992	2	X	5	25	25	3	40	40	10	25	20	25	25	5	40
LUQUILLO	50	X			3	X	X	X	X		X	X		X	X	6			
MAMMOTH CAVE AREA	20	90	2000	1991	3	X			X			X		15	X	8	8	2	3
MOJAVE AND COLORADO DESERTS	X	X							X	X	X		X	♣22	♣	X	X	X	X
NEW JERSEY PINELANDS	X	X	1500	1989		X	X	X	X	X	X	X	X	X	X	X	X	X	X
NIWOT RIDGE	6	X			2	X	X	X	8	X	X				X	10	15		
NOATAK	11	X				X	X	X	X	11	X				11		X		
OLYMPIC	X	X	2000	1988						X		X		X	X	X	X		X
ORGAN PIPE CACTUS	16	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X
ROCKY MOUNTAIN	2	X	385	1992	X			X	12	14		X	X	X	X	X	X		X

## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

HUMAN SYSTEMS							MANAGEMENT PRACTICES									
ARCHAEOLOGY							AGRICULTURAL	APPROPRIATE RURAL TECHNOLOGY	ECOSYSTEM RESTORATION	GENETIC RESOURCE MANAGEMENT	MINING RECLAMATION	RANGELAND MANAGEMENT	RECREATION/TOURISM	RESOURCE PRODUCTION TECHNOLOGIES	SOIL CONSERVATION	WATERSHED MANAGEMENT
CULTURAL ANTHROPOLOGY																
DEMOGRAPHY/SETTLEMENT PATTERNS																
ETHNOBIOLOGY																
LAND TENURE/USE/MANAGEMENT																
RESOURCE ECONOMICS																
TRADITIONAL LAND USE SYSTEMS																

## U.S.A. (CONT.)

GLACIER BAY - ADMIRALTY ISLAND							X								X	
GUANICA							X		X	X			X		X	
H.J. ANDREWS									10	2						
HAWAIIAN ISLANDS							X		X	X					X	
HUBBARD BROOK	X	300							X	X			X		X	
ISLE ROYALE	30	X	X				60		X	X					X	
JORNADA	2	X							X	X		X			X	
KONZA PRAIRIE	X	X	X				X					X		77	X	
LAND BETWEEN THE LAKES	34	12	21	12	23	20	25	40	25	10	15	40	25	10	40	40
LUQUILLO						X			X	X			X	X	X	X
MAMMOTH CAVE AREA	40	X	51		51	51			5				X	30	X	X
MOJAVE AND COLORADO DESERTS				X		X	60		X	X	X		X			X
NEW JERSEY PINELANDS	12	X	12	X	12	12	X	X	X	X	X	X	X	12	X	X
NIWOT RIDGE				X		X			X				X			
NOATAK	X	X	X			X	X						10			
OLYMPIC	10	X	5		3	5			X	X	X				X	
ORGAN PIPE CACTUS			X				X	X	X			X	X		X	X
ROCKY MOUNTAIN	X		X			X	X		X		X		X			

**X = EXISTING PROGRAM    🍏 = PRIORITY AREA**

**X = EXISTING PROGRAM    🍏 = PRIORITY AREA**

# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

INFRASTRUCTURE	CONFERENCE FACILITIES
	CURATORIAL FACILITY
	LABORATORY
	LIBRARY
	LODGING FOR SCIENTISTS
	ROAD ACCESS
	AIR POLLUTION STATION
MONITORING AND RESEARCH FACILITIES	HYDROLOGICAL STATION
	PERMANENT PLOTS: LAKE/STREAM
	PERMANENT PLOTS: VEGETATION
	WATERSHED RESEARCH SITE
	WEATHER STATION
	PERMANENT RESEARCH STAFF
	PERMANENT RESEARCH STAFF

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

**U.S.A. (CONT.)**

[illegible]

# BASIC RESOURCE INFORMATION

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

BIOLOGICAL INVENTORY								ECOLOGICAL MONITORING								RESOURCE MAPS																													
INVERTEBRATES		MAMMALS		BIRDS		NONVASCULAR PLANTS		VASCULAR PLANTS		VERTEBRATES OTHER THAN MAMMALS		BIOLOGICAL SURVEY AND COLLECTIONS		AIR QUALITY		CLIMATE		FRESHWATER ECOSYSTEMS		GROUNDWATER HYDROLOGY		MARINE ECOSYSTEMS		PALEOECOLOGY		PRECIPITATION CHEMISTRY		SURFACE HYDROLOGY		VEGETATION DATA		WATER QUALITY		GEOLOGICAL		LAND USE		REGIONAL LAND TENURE		SOILS		TOPOGRAPHIC		VEGETATION	

## U.S.A. (CONT.)

SAN DIMAS	X	X	X	X	X	X	10	60					10	55	50	10	X			X	X	X
SAN JOAQUIN	2	50	50	50	50	X		50							50		X	50	X	X	X	
SEQUOIA-KINGS CANYON	X	10	X	X	X	X	15	70	10			5	12	X	X	X	X	X	X	X	X	
SOUTH ATLANTIC COASTAL PLAIN	12	15		12	12	13	10	50	12	7			9	7	3	4	7		9	3	40	12
SOUTHERN APPALACHIAN	50	50	60	50	50	X	13	60	60	X			13	X	50	X	X	X		X	X	X
STANISLAUS-TUOLUMNE								20									X	10			X	X
THREE SISTERS				X		X									4						X	
UNIVERSITY OF MICHIGAN	X	60	60	50		X		73	78	X		X	14		50	25	X	X	X	X	X	X
VIRGIN ISLANDS	X	X		3	X			25		X	26			X	X		X	X		X	X	X
VIRGINIA COAST	17	18	X	X	18	X		5	5	5	X	X		X	X	2	X	X	4	X	X	X
YELLOWSTONE	64	103	61	46	64	X	6	103	101	102		5	10	68	57	X	X		X		X	X

## UZBEKISTAN

CHATKAL MOUNTAINS						X	3	X	3					15	40	3				X		
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## 319 FORMER YUGOSLAV REPUBLIC

TARA RIVER BASIN	10	10		90	90	15	2	2	40	10	10			10	8	8	5			X	X	X
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## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

X = EXISTING PROGRAM # = NUMBER OF YEARS OF RECORDS \* = PRIORITY AREA

HISTORICAL RECORDS	ECOSYSTEM CYCLES AND PROCESSES						SPECIES POPULATIONS		POLLUTION			
	BIOGEOCHEMICAL CYCLES						PESTS AND DISEASES		ACIDIC DEPOSITION			
	COMPARATIVE ECOLOGICAL RESEARCH						RARE/ENDANGERED SPECIES		ATMOSPHERIC POLLUTANTS			
	ECOLOGICAL SUCCESSION						WILDLIFE POPULATION DYNAMICS		PESTICIDES			
	ECOSYSTEM MODELING								WATER POLLUTANTS			
	FIRE HISTORY/EFFECTS											
	HYDROLOGICAL CYCLE											
SEDIMENTATION												

## U.S.A. (CONT.)

SAN DIMAS	30	X	643	1993		X	X	X	X	X	X	X	X	X		X	X	X		X
SAN JOAQUIN	30	50				X		X	X	X	X	X	X		X	X	X			X
SEQUOIA-KINGS CANYON	X	X	200	1991	6	X		X	X	X	X	X			X		X			
SOUTH ATLANTIC COASTAL PLAIN	3	10	50	1992	X	X	*13	2	3	X	X	7	X	X	13	X	9	*11		4
SOUTHERN APPALACHIAN	32	X			5	X	X	X	X	X	X	X	X	X	*	X	X	X	X	X
STANISLAUS-TUOLUMNE	4					X							X	X						
THREE SISTERS	40	X				X		X	X				X	X			X			
UNIVERSITY OF MICHIGAN	50	78			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIRGIN ISLANDS	25	X				X	X	X	X	X	X				X	X				
VIRGINIA COAST	50				2		5	X	5	5	X	5	5		18	18				2
YELLOWSTONE	17	X	100	1992	4	X	X	X	X	X	X	X	X	X	X	X	X	X		X

## UZBEKISTAN

CHATKAL MOUNTAINS		X											X		X	X		X	X	X
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## FORMER YUGOSLAV REPUBLIC

TARA RIVER BASIN	2	110					2	2	2				2		2	2		2	X	2
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## RESEARCH TOPICS

X = EXISTING PROGRAM    \* = PRIORITY AREA

HUMAN SYSTEMS							MANAGEMENT PRACTICES									
ARCHAEOLOGY							AGRICULTURAL	APPROPRIATE RURAL TECHNOLOGY	ECOSYSTEM RESTORATION	GENETIC RESOURCE MANAGEMENT	MINING RECLAMATION	RANGELAND MANAGEMENT	RECREATION/TOURISM	RESOURCE PRODUCTION TECHNOLOGIES	SOIL CONSERVATION	WATERSHED MANAGEMENT
CULTURAL ANTHROPOLOGY																
DEMOGRAPHY/SETTLEMENT PATTERNS																
ETHNOBIOLOGY																
LAND TENURE/USE/MANAGEMENT																
RESOURCE ECONOMICS																
TRADITIONAL LAND USE SYSTEMS																

## U.S.A. (CONT.)

SAN DIMAS				X		X			X						X	X
SAN JOAQUIN						X										
SEQUOIA-KINGS CANYON	X	X							X			X				
SOUTH ATLANTIC COASTAL PLAIN	9	9		9	2	12			X				4		2	7
SOUTHERN APPALACHIAN		X		X		X			X				X		X	X
STANISLAUS-TUOLUMNE																
THREE SISTERS																
UNIVERSITY OF MICHIGAN						X			X	X			X		X	X
VIRGIN ISLANDS		X							X	X			X		X	X
VIRGINIA COAST													X	X	X	X
YELLOWSTONE	51	2		120	2	2	X		X			X	X	35	X	X

## UZBEKISTAN

CHATKAL MOUNTAINS						X					X	X			X	
FORMER YUGOSLAV REPUBLIC																
TARA RIVER BASIN						2	X		2		2	X			X	2



# SITE SUPPORT

X = EXISTING PROGRAM    \* = PRIORITY AREA  
# = NUMBER OF STATIONS, SCIENTISTS, PLOTS, ETC.

		INFRASTRUCTURE						MONITORING AND RESEARCH FACILITIES					
#	NUMBER OF STATIONS, SCIENTISTS, ETC.	CONFERENCE FACILITIES						PERMANENT RESEARCH STAFF					
		CURATORIAL FACILITY						WEATHER STATION					
		LABORATORY						WATERSHED RESEARCH SITE					
		LIBRARY						VEGETATION					
		LODGING FOR SCIENTISTS						PERMANENT PLOTS:					
		ROAD ACCESS						LAKE/STREAM					
								PERMANENT PLOTS:					
								HYDROLOGICAL STATION					
								AIR POLLUTION STATION					

NUMBER OF TYPES OF  
RECORDS, PROGRAMS,  
FACILITIES (MAXIMUM = 71)

## U.S.A. (CONT.)

SAN DIMAS	X		X	X	20	X	X	X				6	34	X	2	47
SAN JOAQUIN	X	X	X	X		X								X	2	29
SEQUOIA-KINGS CANYON	X	X	X	X	X	X	X	X				X	X	X	4	51
SOUTH ATLANTIC COASTAL PLAIN	X	X														54
SOUTHERN APPALACHIAN	X	X	4	X	6	X	X	X	16	10		500	X	X	5	60
STANISLAUS-TUOLUMNE						X										10
THREE SISTERS					12											10
UNIVERSITY OF MICHIGAN	X	X	X	X	150	X	X		X	50	2		2	X	2	56
VIRGIN ISLANDS	X	X	X	X	8	X			4		3		3	X	3	37
VIRGINIA COAST	X		X		17	X		X			X	X	4	4	3	48
YELLOWSTONE	X	X	X	X		X	X	X	X	X	X	X	X	X	35	59

## UZBEKISTAN

CHATKAL MOUNTAINS	X		X	X	5		X	X						X	19	27
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## FORMER YUGOSLAV

## REPUBLIC

TARA RIVER BASIN	X	2	2	2	2	X	2	X					27	X	27	45
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## **Tabular Data Summaries**

**Country Biosphere Reserves by Biome**

**Data Summaries by Biome**

**Data Bases by Frequency**

# DISTRIBUTION OF BIOSPHERE RESERVES BY COUNTRY AND BIOME

	TEMPERATE BROAD-LEAF FOREST	COMPLEX MOUNTAIN SYSTEMS	EVERGREEN SCLERO- PHYLOUS WOODLAND	TEMPERATE NEEDLE-LEAF FOREST	TEMPERATE GRASSLAND	MIXED ISLAND SYSTEMS	WARM DESERT	TUNDRA	TEMPERATE RAINFOREST	COLD DESERT	LAKE SYSTEMS	TROPICAL DRY FOREST	COUNTRY TOTAL	COUNTRY % OF TOTAL
AUSTRIA	1	3	0	0	0	0	0	0	0	0	0	0	4	2%
BELARUS	1	0	0	0	0	0	0	0	0	0	0	0	1	1%
BULGARIA	1	16	0	0	0	0	0	0	0	0	0	0	17	10%
CANADA	2	1	0	2	0	0	0	0	0	0	1	0	6	3%
CROATIA	0	0	1	0	0	0	0	0	0	0	0	0	1	1%
CZECH REPUBLIC	2	2	0	0	0	0	0	0	0	0	0	0	4	2%
CZECH. & POLAND	0	1	0	0	0	0	0	0	0	0	0	0	1	1%
DENMARK	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
ESTONIA	1	0	0	0	0	0	0	0	0	0	0	0	1	1%
FINLAND	0	0	0	1	0	0	0	0	0	0	0	0	1	1%
FRANCE	3	0	3	0	0	2	0	0	0	0	0	0	8	5%
GERMANY	10	2	0	0	0	0	0	0	0	0	0	0	12	7%
GREECE	0	0	2	0	0	0	0	0	0	0	0	0	2	1%
HUNGARY	5	0	0	0	0	0	0	0	0	0	0	0	5	3%
IRELAND	2	0	0	0	0	0	0	0	0	0	0	0	2	1%
ITALY	0	1	2	0	0	0	0	0	0	0	0	0	3	2%
KYRG. & UZBEK.	0	1	0	0	0	0	0	0	0	0	0	0	1	1%
NETHERLANDS	1	0	0	0	0	0	0	0	0	0	0	0	1	1%
NORWAY	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
POLAND	4	0	0	0	0	0	0	0	0	0	0	0	4	2%
POLAND & SLOVAKIA	2	0	0	0	0	0	0	0	0	0	0	0	2	1%
PORTUGAL	0	0	1	0	0	0	0	0	0	0	0	0	1	1%
ROMANIA	2	0	0	0	1	0	0	0	0	0	0	0	3	2%
RUSSIAN FEDERATION	6	2	0	4	1	0	0	0	0	1	0	0	14	8%
SLOVAKIA	2	0	0	0	0	0	0	0	0	0	0	0	2	1%
SPAIN	0	0	10	0	0	1	0	0	0	0	0	0	11	6%
SWEDEN	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
SWITZERLAND	0	1	0	0	0	0	0	0	0	0	0	0	1	1%
TURKMENISTAN	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
UKRAINE	1	0	0	0	2	0	0	0	0	0	0	0	3	2%
UNITED KINGDOM	6	6	0	0	0	0	0	0	0	0	0	0	12	7%
UNITED STATES	11	10	4	1	3	4	5	2	4	1	1	1	47	27%
YUGOSLAVIA	0	1	0	0	0	0	0	0	0	0	0	0	1	1%
<b>BIOME TOTAL</b>	<b>63</b>	<b>47</b>	<b>23</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>175</b>	
<b>% OF EUROMAB BR</b>	<b>36%</b>	<b>27%</b>	<b>13%</b>	<b>5%</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>		

## BASIC RESOURCE INFORMATION

NUMBER OF BIOSPHERE RESERVES IN BIOME REPORTING INFORMATION FOR CATEGORY

BIOLOGICAL INVENTORY								ECOLOGICAL MONITORING								RESOURCE MAPS					
INVERTEBRATES								MAMMALS								GEOLOGICAL					
BIRDS								CLIMATE								LAND USE					
NONVASCULAR PLANTS								FRESHWATER ECOSYSTEMS								REGIONAL LAND TENURE					
VASCULAR PLANTS								GROUNDWATER HYDROLOGY								SOILS					
VERTEBRATES OTHER THAN MAMMALS								MARINE ECOSYSTEMS								TOPOGRAPHIC					
BIOLOGICAL SURVEY AND COLLECTIONS								PALEOECOLOGY								VEGETATION					
								PRECIPITATION CHEMISTRY													
								SURFACE HYDROLOGY													
								VEGETATION DATA													
								WATER QUALITY													

**SUMMARY  
INFORMATION**

## BIOME:

TEMPERATE RAINFOREST	3	4	2	3	4	3	4	2	4	4	2	3	2	1	3	4	2	4	3	2	2	3	3
TEMPERATE NEEDLE-LEAF FOREST	5	8	3	5	8	7	7	5	6	4	2	1	1	4	6	4	5	5	3	2	5	5	7
TROPICAL DRY FOREST	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	
TEMPERATE BROAD-LEAF FOREST	56	60	22	50	57	56	57	35	57	42	40	13	11	30	52	42	49	48	38	13	49	55	56
EVERGREEN SCLEROPHYLLOUS WOODLAND	16	18	11	17	20	20	18	8	20	12	8	5	2	6	16	19	15	20	18	7	19	20	17
WARM DESERT	4	4	4	3	4	4	4	4	5	3	4	1	2	3	5	4	4	4	2	2	5	5	5
COLD DESERT	1	2	1	1	2	2	3	2	3	1	2	0	1	0	2	3	0	2	1	1	3	3	3
TUNDRA	2	4	0	1	4	4	4	2	4	3	2	1	0	2	2	4	1	3	2	1	2	4	4
TEMPERATE GRASSLAND	6	7	2	5	7	6	7	1	7	4	4	2	1	3	5	6	5	5	6	0	6	5	6
COMPLEX MOUNTAIN SYSTEMS	29	33	10	19	38	39	40	16	32	18	13	0	6	16	22	37	22	39	28	5	34	40	37
MIXED ISLAND SYSTEMS	3	3	1	4	5	3	4	2	6	3	3	2	0	1	3	4	2	4	3	0	4	5	6
LAKE SYSTEMS	1	2	2	1	2	1	2	2	1	1	0	0	2	1	2	2	2	1	1	2	2	2	2

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## TOTAL BIOSPHERE RESERVES

(EX 170) 126 146 59 109 152 146 151 80 146 96 81 29 28 68 119 130 108 136 105 35 132 148 147

PERCENT OF TOTAL 74% 86% 35% 64% 89% 86% 89% 47% 86% 56% 48% 17% 16% 40% 70% 76% 64% 80% 62% 21% 78% 87% 86%

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## BASIC RESOURCE INFORMATION

## RESEARCH TOPICS

NUMBER OF BIOSPHERE RESERVES IN BIOME REPORTING INFORMATION FOR CATEGORY

HISTORICAL RECORDS	ECOSYSTEM CYCLES AND PROCESSES														SPECIES POPULATIONS		POLLUTION			
	BIOGEOCHEMICAL CYCLES														PESTS AND DISEASES		ACIDIC DEPOSITION			
	COMPARATIVE ECOLOGICAL RESEARCH														RARE/ENDANGERED SPECIES		ATMOSPHERIC POLLUTANTS			
	ECOLOGICAL SUCCESSION														WILDLIFE POPULATION DYNAMICS		PESTICIDES			
	ECOSYSTEM MODELING																WATER POLLUTANTS			
	FIRE HISTORY/EFFECTS																			
	HYDROLOGICAL CYCLE																			
SEDIMENTATION																				

**SUMMARY  
INFORMATION**

## BIOME:

TEMPERATE RAINFOREST	4	3	2	2	1	2	2	2	4	2	3	1	4	2	4	4	2	0	2	
TEMPERATE NEEDLE-LEAF FOREST	6	6	2	2	1	5			6	3	4	4	5		6	8	4	6	2	6
TROPICAL DRY FOREST	1	1	0	0	1	0			1	1	1	1	0	0	1	1	1	1	1	1
TEMPERATE BROAD-LEAF FOREST	58	51	18	19	22	48			44	28	23	32	41	29	55	51	35	36	18	40
EVERGREEN																				
SCLEROPHYLLOUS WOODLAND	18	19	5	6	6	16			12	12	17	12	8	11	17	18	5	9	5	10
WARM DESERT	4	4	2	2	4	5			4	4	4	5	1	3	3	4	3	3	3	3
COLD DESERT	2	3	0	0	1	3			2	1	1	2	0	2	1	2	0	2	0	1
TUNDRA	4	3	1	1	0	4			3	2	1	1	1	1	3	4	2	3	1	1
TEMPERATE GRASSLAND	4	7	2	2	3	7			6	4	6	4	4	5	6	7	4	3	4	3
COMPLEX MOUNTAIN SYSTEMS	25	31	9	9	8	20			26	17	10	16	33	18	33	24	15	14	8	13
MIXED ISLAND SYSTEMS	5	6	1	1	3	4			5	2	2	3	3	2	5	5	1	0	1	1
LAKE SYSTEMS	2	2	2	2	1	2			1	1	1	0	1	1	2	2	1	2	0	1

## TOTAL BIOSPHERE RESERVES

(EX 170)	133	136	44	46	51	116	63	113	125	77	73	81	101	79	136	130	75	81	43	82
PERCENT OF TOTAL	78%	80%	26%	27%	30%	68%	37%	66%	74%	45%	43%	48%	59%	46%	80%	76%	44%	48%	25%	48%

## RESEARCH TOPICS

NUMBER OF BIOSPHERE RESERVES IN BIOME REPORTING INFORMATION FOR CATEGORY

MANAGEMENT PRACTICES	WATERSHED MANAGEMENT
	SOIL CONSERVATION
	TECHNOLOGIES RESOURCE PRODUCTION
	RECREATION/TOURISM
	RANGELAND MANAGEMENT
	MINING RECLAMATION
	GENETIC RESOURCE MANAGEMENT
	ECOSYSTEM RESTORATION
	TECHNOLOGY APPROPRIATE RURAL
	AGRICULTURAL
HUMAN SYSTEMS	ARCHAEOLOGY
	CULTURAL ANTHROPOLOGY
	DEMOGRAPHY/SETTLEMENT PATTERNS
	ETHNOBIOLOGY
	LAND TENURE/ USE/MANAGEMENT
	RESOURCE ECONOMICS
	TRADITIONAL LAND USE SYSTEMS

**SUMMARY**  
**INFORMATION**

## BIOME:

TEMPERATE RAINFOREST	2	3	2	0	2	1	3	0	0	3	2	2	0	2	1	3	1
TEMPERATE NEEDLE-LEAF FOREST	2	5	2	2	3	1	4	1	1	4	2	5	0	4	2	5	3
TROPICAL DRY FOREST	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	1
TEMPERATE BROAD-LEAF FOREST	14	23	16	15	14	11	40	30	21	46	28	25	17	44	13	39	26
EVERGREEN SCLEROPHYLLOUS WOODLAND	5	12	3	6	5	4	10	10	5	16	7	6	8	17	3	13	9
WARM DESERT	2	3	1	3	1	0	3	2	2	4	0	2	2	3	1	3	3
COLD DESERT	0	0	1	0	1	1	2	0	0	2	0	1	1	1	1	1	0
TUNDRA	0	2	0	0	0	0	3	0	1	2	0	2	0	2	0	0	0
TEMPERATE GRASSLAND	2	4	1	2	4	1	5	5	4	3	3	2	5	2	2	6	4
COMPLEX MOUNTAIN SYSTEMS	6	2	3	2	3	2	17	7	3	17	9	8	9	14	5	19	7
MIXED ISLAND SYSTEMS	0	2	0	1	1	0	2	1	1	4	3	0	0	4	1	2	3
LAKE SYSTEMS	2	2	1	1	2	1	0	0	0	2	1	0	0	1	0	0	1

## TOTAL BIOSPHERE RESERVES

(EX 170) 35 58 30 32 36 22 90 56 38 104 56 54 43 95 29 92 58

PERCENT OF TOTAL 21% 34% 18% 19% 21% 13% 53% 33% 22% 61% 33% 32% 25% 56% 17% 54% 34%

## SITE SUPPORT

NUMBER OF BIOSPHERE RESERVES IN BIOME REPORTING INFORMATION FOR CATEGORY

INFRASTRUCTURE	CONFERENCE FACILITIES
	CURATORIAL FACILITY
	LABORATORY
	LIBRARY
	LODGING FOR SCIENTISTS
	ROAD ACCESS
MONITORING AND RESEARCH FACILITIES	AIR POLLUTION STATION
	HYDROLOGICAL STATION
	PERMANENT PLOTS: LAKE/STREAM
	PERMANENT PLOTS: VEGETATION
	WATERSHED RESEARCH SITE
	WEATHER STATION
	PERMANENT RESEARCH STAFF

**SUMMARY  
INFORMATION**

## BIOME:

TEMPERATE RAINFOREST	3	2	2	3	4	2	3	2	1	3	3	4	4
TEMPERATE NEEDLE-LEAF FOREST	6	6	6	8	5	7	4	5	4	5	7	6	6
TROPICAL DRY FOREST	1	1	0	1	1	0	1	1	0	1	0	1	1
TEMPERATE BROAD-LEAF FOREST	52	31	45	45	47	46	35	38	15	39	22	53	36
EVERGREEN													
SCLEROPHYLLOUS WOODLAND	15	13	16	16	17	22	4	15	4	7	6	18	15
WARM DESERT	4	3	4	4	4	4	3	5	0	4	2	5	3
COLD DESERT	2	3	2	2	2	3	2	1	1	0	0	3	2
TUNDRA	2	3	2	4	1	2	2	2	0	3	1	4	3
TEMPERATE GRASSLAND	7	5	7	4	7	7	3	2	3	4	3	5	6
COMPLEX MOUNTAIN SYSTEMS													
MIXED ISLAND SYSTEMS	24	13	16	20	30	30	15	22	7	20	10	30	22
LAKE SYSTEMS	4	3	4	4	4	5	0	2	3	3	3	6	5
	1	1	1	2	2	1	2	1	1	1	1	2	0

## TOTAL BIOSPHERE RESERVES

(EX 170) 121 84 105 113 124 129 74 96 39 90 58 137 103

PERCENT OF TOTAL 71% 49% 62% 66% 73% 76% 44% 56% 23% 53% 34% 81% 61%

## **SUMMARY INFORMATION: FREQUENCY OF DATABASES**

<b>%</b>	<b>Bio. Res.</b>	<b>#</b>	<b>CATEGORY</b>
<b>BASIC RESOURCE INFO</b>			
<b><u>BIOLOGICAL INVENTORY</u></b>			
89.4%		152	VASCULAR PLANTS
88.8%		151	BIOLOGICAL SURVEY AND COLLECTIONS
85.9%		146	MAMMALS
85.9%		146	VERTEBRATES OTHER THAN MAMMALS
74.1%		126	INVERTEBRATES
64.1%		109	NONVASCULAR PLANTS
34.7%		59	BIRDS
<b><u>ECOLOGICAL MONITORING</u></b>			
85.9%		146	CLIMATE
76.5%		130	VEGETATION DATA
70.0%		119	SURFACE HYDROLOGY
63.5%		108	WATER QUALITY
56.5%		96	FRESHWATER ECOSYSTEMS
47.6%		81	GROUNDWATER HYDROLOGY
47.1%		80	AIR QUALITY
40.0%		68	PRECIPITATION CHEMISTRY
17.1%		29	MARINE ECOSYSTEMS
16.5%		28	PALEOECOLGY
<b><u>RESOURCE MAPS</u></b>			
87.1%		148	TOPOGRAPHIC
86.5%		147	VEGETATION
80.0%		136	GEOLOGICAL
77.6%		132	SOILS
61.8%		105	LAND USE
20.6%		35	REGIONAL LAND TENURE
<b><u>HISTORICAL RECORDS</u></b>			
80.0%		136	BIBLIOGRAPHY
78.2%		133	AERIAL PHOTOGRAPHS
68.2%		116	HISTORY OF SCIENTIFIC STUDY
30.0%		51	GEOGRAPHIC INFORMATION SYSTEM
<b>RESEARCH TOPICS</b>			
<b><u>ECOSYSTEM CYCLES AND PROCESSES</u></b>			
73.5%		125	ECOLOGICAL SUCCESSION
66.5%		113	COMPARITIVE ECOLOGICAL RESEARCH
59.4%		101	SEDIMENTATION
47.6%		81	HYDROLOGICAL CYCLE
45.3%		77	ECOSYSTEM MODELING
42.9%		73	FIRE HISTORY AND EFFECTS
37.1%		63	BIOGEOCHEMICAL CYCLES



## **SUMMARY INFORMATION: FREQUENCY OF DATABASES**

<b>%</b>	<b>Bio. Res.</b>	<b>#</b>	<b>CATEGORY</b>
			<b><u>SPECIES POPULATIONS</u></b>
80.0%		136	RARE AND ENDANGERED SPECIES
76.5%		130	WILDLIFE POPULATION DYNAMICS
46.5%		79	PESTS AND DISEASES
			<b><u>RESEARCH TOPICS</u></b>
			<b><u>POLLUTION</u></b>
48.2%		82	WATER POLLUTANTS
47.6%		81	ATMOSPHERIC POLLUTANTS
44.1%		75	ACIDIC DEPOSITION
25.3%		43	PESTICIDES
			<b><u>HUMAN SYSTEMS</u></b>
52.9%		90	TRADITIONAL LAND USE SYSTEMS
34.1%		58	CULTURAL ANTHROPOLOGY
21.2%		36	LAND TENURE/ USE/MANAGEMENT
20.6%		35	ARCHAEOLOGY
18.8%		32	ETHNOBIOLOGY
17.6%		30	DEMOGRAPHY/SETTLEMENT PATTERNS
12.9%		22	RESOURCE ECONOMICS
			<b><u>MANAGEMENT PRACTICES</u></b>
61.2%		104	ECOSYSTEM RESTORATION
55.9%		95	RECREATION AND TOURISM
54.1%		92	SOIL CONSERVATION
34.1%		58	WATERSHED MANAGEMENT
32.9%		56	AGRICULTURAL
32.9%		56	GENETIC RESOURCE MANAGEMENT
31.8%		54	MINING RECLAMATION
25.3%		43	RANGELAND MANAGEMENT
22.4%		38	APPROPRIATE RURAL TECHNOLOGY
17.1%		29	RESOURCE PRODUCTION TECHNOLOGIES
			<b><u>SITE SUPPORT</u></b>
			<b><u>INFRASTRUCTURE</u></b>
75.9%		129	ROAD ACCESS
72.9%		124	LODGING FOR SCIENTISTS
71.2%		121	CONFERENCE FACILITIES
66.5%		113	LIBRARY
61.8%		105	LABORATORY
49.4%		84	CURATORIAL FACILITY
			<b><u>MONITORING AND RESEARCH FACILITIES</u></b>
80.6%		137	WEATHER STATION
56.5%		96	HYDROLOGICAL STATION
52.9%		90	PERMANENT PLOTS: VEGETATION
43.5%		74	AIR POLLUTION STATION
34.1%		58	WATERSHED RESEARCH SITE
22.9%		39	PERMANENT PLOTS: LAKE/STREAM
60.6%		103	PERMANENT RESEARCH STAFF

## SUMMARY INFORMATION: FREQUENCY OF DATABASES

%	Bio. Res.	#	CATEGORY
89.4%		152	VASCULAR PLANTS
88.8%		151	BIOLOGICAL SURVEY AND COLLECTIONS
87.1%		148	TOPOGRAPHIC
86.5%		147	VEGETATION
85.9%		146	MAMMALS
85.9%		146	VERTEBRATES OTHER THAN MAMMALS
85.9%		146	CLIMATE
80.6%		137	WEATHER STATION
80.0%		136	GEOLOGICAL
80.0%		136	BIBLIOGRAPHY
80.0%		136	RARE AND ENDANGERED SPECIES
78.2%		133	AERIAL PHOTOGRAPHS
77.6%		132	SOILS
76.5%		130	VEGETATION DATA
76.5%		130	WILDLIFE POPULATION DYNAMICS
75.9%		129	ROAD ACCESS
74.1%		126	INVERTEBRATES
73.5%		125	ECOLOGICAL SUCCESSION
72.9%		124	LODGING FOR SCIENTISTS
71.2%		121	CONFERENCE FACILITIES
70.0%		119	SURFACE HYDROLOGY
68.2%		116	HISTORY OF SCIENTIFIC STUDY
66.5%		113	COMPARITIVE ECOLOGICAL RESEARCH
66.5%		113	LIBRARY
64.1%		109	NONVASCULAR PLANTS
63.5%		108	WATER QUALITY
61.8%		105	LAND USE
61.8%		105	LABORATORY
61.2%		104	ECOSYSTEM RESTORATION
60.6%		103	PERMANENT RESEARCH STAFF
59.4%		101	SEDIMENTATION
56.5%		96	FRESHWATER ECOSYSTEMS
56.5%		96	HYDROLOGICAL STATION
55.9%		95	RECREATION AND TOURISM
54.1%		92	SOIL CONSERVATION
52.9%		90	TRADITIONAL LAND USE SYSTEMS
52.9%		90	PERMANENT PLOTS: VEGETATION

## **SUMMARY INFORMATION: FREQUENCY OF DATABASES**

<b>%</b>	<b>Bio. Res.</b>	<b>#</b>	<b>CATEGORY</b>
49.4%		84	CURATORIAL FACILITY
48.2%		82	WATER POLLUTANTS
47.6%		81	GROUNDWATER HYDROLOGY
47.6%		81	HYDROLOGICAL CYCLE
47.6%		81	ATMOSPHERIC POLLUTANTS
47.1%		80	AIR QUALITY
46.5%		79	PESTS AND DISEASES
45.3%		77	ECOSYSTEM MODELING
44.1%		75	ACIDIC DEPOSITION
43.5%		74	AIR POLLUTION STATION
42.9%		73	FIRE HISTORY AND EFFECTS
40.0%		68	PRECIPITATION CHEMISTRY
37.1%		63	BIOGEOCHEMICAL CYCLES
34.7%		59	BIRDS
34.1%		58	CULTURAL ANTHROPOLOGY
34.1%		58	WATERSHED MANAGEMENT
34.1%		58	WATERSHED RESEARCH SITE
32.9%		56	AGRICULTURAL
32.9%		56	GENETIC RESOURCE MANAGEMENT
31.8%		54	MINING RECLAMATION
30.0%		51	GEOGRAPHIC INFORMATION SYSTEM
25.3%		43	PESTICIDES
25.3%		43	RANGELAND MANAGEMENT
22.9%		39	PERMANENT PLOTS: LAKE/STREAM
22.4%		38	APPROPRIATE RURAL TECHNOLOGY
21.2%		36	LAND TENURE/ USE/MANAGEMENT
20.6%		35	REGIONAL LAND TENURE
20.6%		35	ARCHAEOLOGY
18.8%		32	ETHNOBIOLOGY
17.6%		30	DEMOGRAPHY/SETTLEMENT PATTERNS
17.1%		29	MARINE ECOSYSTEMS
17.1%		29	RESOURCE PRODUCTION TECHNOLOGIES
16.5%		28	PALEOECOLGY
12.9%		22	RESOURCE ECONOMICS



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